



County Borough of Ipswich.

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# REPORT

*of*

THE MEDICAL OFFICER  
OF HEALTH

*and*

SCHOOL MEDICAL OFFICER

for the Year 1931.



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COUNTY BOROUGH OF IPSWICH.

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Annual Report  
*of the*  
Medical Officer of Health  
and School Medical Officer  
*for 1931.*

By A. M. N. PRINGLE,  
M.B., C.M. Edin., D.P.H. Camb.,  
*Medical Officer of Health,*

School Medical Officer, Superintendent Isolation Hospital,  
Medical Officer to the Ipswich Port Sanitary Authority,  
Fellow of the Royal Sanitary Institute.  
Fellow of the Royal Society of Medicine,  
etc.

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IPSWICH:  
EAST ANGLIAN DAILY TIMES CO., LTD.  
1932.





# County Borough of Ipswich.

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PUBLIC HEALTH DEPARTMENT,  
ELM STREET,

IPSWICH.

*July, 1932.*

LADIES AND GENTLEMEN,

I have the honour to present to you my Report on the Health of Ipswich for the year 1931.

I wish to place on record my appreciation of the support given me by the Public Health Committee in all matters pertaining to the health of the people.

I have great pleasure in making public acknowledgement of the high value of the services rendered by the staff of the Public Health Department.

I am, Ladies and Gentlemen,

Your obedient Servant,

A. M. N. PRINGLE, M.B., C.M., D.P.H.

*Medical Officer of Health,  
School Medical Officer.*

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COUNTY BOROUGH OF IPSWICH.

# Public Health Officers of the Authority.

December 31st, 1931.

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## MEDICAL (Whole Time).

*Medical Officer of Health, School Medical Officer, Tuberculosis Officer and Superintendent, Ipswich Isolation Hospital.*

A. M. N. PRINGLE, M.B., C.M. (Edin.), D.P.H. (Camb.).

*Deputy Medical Officer of Health, etc., etc.*

A. W. GAYE, B.A., M.B., B.CH., D.P.H.

*Assistant Medical Officer of Health, etc., etc.*

DORIS E. P. JOLLY, M.B., B.S., M.R.C.S., L.R.C.P., D.P.H.

*Medical Superintendent, Ipswich Sanatorium.*

W. F. SUTCLIFFE, M.R.C.S., L.R.C.P.

*Assistant Medical Officer, Ipswich Sanatorium.*

R. PHILPOTT, M.A., M.R.C.S., L.R.C.P.

*Resident Medical Officer, Heathfields Municipal Hospital.*

ANNIE J. DUNLEVY, M.R.C.S., L.R.C.P. (Ireland).

(Appointed 10/1/32).

## Part Time.

*Assistant School Medical Officer.*

EDNA M. EDWARDS, M.R.C.S., L.R.C.P.

(Appointed 1/6/1931).

*Medical Officer V.D. Clinic.*

F. FOWLER WARD, B.A., M.B., B.CH.

*Medical Officer Heathfields Municipal Hospital and St. John's Home.*

J. GUTCH, M.A., M.D., B.CH., M.R.C.S., L.R.C.P.

*District Medical Officer under Poor Law Acts.*

W. F. FRYER, L.R.C.P., M.R.C.S.

*Public Vaccinator.*

H. W. FAREBROTHER, M.R.C.S., L.R.C.P., (London).

(Appointed 9/1/32).

## Consultants.

*Orthopedics.*

R. CHARLES, O.B.E., F.R.C.S.

*Puerperal Fever.*

J. GUTCH, M.A., M.D., B.CH., M.R.C.S., L.R.C.P.

## DENTAL SURGEONS (Whole Time).

*Education and Public Health.*

T. A. EDMONDSON, L.D.S., R.C.S. (Eng.).

A. W. T. WARD, L.D.S., R.C.S. (Eng.).

R. CUTHILL, L.D.S., R.C.S. (Eng.).

## OTHER OFFICERS (Whole Time).

### *Chief Sanitary Inspector.*

A. T. MEARS. 1.  
(Retired 30/6/1932).

H. L. BATY. 1, 2.  
(Appointed 15/7/1932).

### *District Sanitary Inspectors.*

G. ELLISON. 1, 2.      R. F. WYNN. 1, 2.      F. W. FAIREY. 1, 2.

### *Health Visitors.*

Miss F. PEPPER. 3, 4, 5.      Miss M. SPRINGETT. 3, 4, 5.  
,, F. M. CROSS. 3, 4, 5.      Mrs. E. F. PENNA. 3, 4, 5.

### *School Nurses.*

Miss M. SANDBACH. 3.      Miss F. ILETT. 3.

### *Tuberculosis Nurse.*

Miss E. JONES. 3.

### *Matron Isolation Hospital.*

Miss A. EDLINGTON. 3.

### *Midwives, Maternity Home.*

Miss F. WILLCOX. 3, 4.      Miss G. KENNEY, 3, 4.

### *Chief Clerk.*

H. J. WALTON. 1.

- |  |                          |
|--|--------------------------|
| 1.—Sanitary Inspectors Certificate R.S. Institute. | 3.—Trained Nurse.        |
| 2.—Meat Inspectors Certificate R.S. Institute.     | 4.—Certificate of C.M.B. |
| 5.—Health Visitors Certificate R.S.I.              |                          |

## Part Time.

### *Public Analyst.*

W. LINCOLNE SUTTON, F.I.C.

### *Veterinary Surgeon.*

W. J. BROWNING, M.R.C.V.S.

### *Vaccination Officers.*

Ipswich (Eastern) Sub-District, S. JAMES.  
Ipswich (Western) Sub-District, H. J. WALTON.  
(Appointed 1/7/32).

### *Matron, Maternity Home.*

Miss M. BLYTH, 3, 4.

# GENERAL PROVISION OF HEALTH SERVICES FOR THE COUNTY BOROUGH OF IPSWICH.

## HOSPITAL PROVISION.

### 1. FEVER.

Ipswich Isolation Hospital, Foxhall Road, Ipswich—110 beds, including cubicle block of 24 beds for suspects or mixed infections—accommodation for all forms of Infectious Diseases.

### 2. SMALL POX.

Ipswich Small Pox Hospital, Foxhall Heath, near Ipswich—24 beds.

### 3. TUBERCULOSIS.

Ipswich Sanatorium, Foxhall, near Ipswich—120 beds, early cases.

Ipswich Isolation Hospital :—

Advanced Tuberculosis—30 beds.

Surgical Tuberculosis—24 beds.\*

East Suffolk and Ipswich Hospital (Voluntary Hospital)—beds as required for operative treatment.

\*Closed at present as wards required for Infectious Diseases.

### 4. MATERNITY.

Ipswich Maternity Home, Wingfield Street, Ipswich—15 bedrooms and 2 Labour Rooms.

### 5. MUNICIPAL HOSPITAL.

Heathfields Municipal Hospital taken over from the Board of Guardians in April, 1930—contains 311 beds.

## AMBULANCE FACILITIES.

### (a) INFECTIOUS CASES.

A Motor Ambulance has been provided by the Council and Motor Van for the removal of infected bedding.

### (b) NON-INFECTIOUS AND ACCIDENT CASES.

The Council have no Ambulances for use in these connections, but assists the local Branch of St. John Ambulance by an annual grant.

## CLINICS AND TREATMENT CENTRES.

## 1. INFANT WELFARE CENTRES.

## (a) PUBLIC HEALTH DEPARTMENT, ELM STREET.

Every afternoon (except Saturday), 2.30 p.m.—5.0 p.m.

Medical Officer in attendance Monday and Thursday.

## (b) NACTON ESTATE (RED TRIANGLE HUT).

Every Tuesday afternoon, 2.30 p.m.—5 p.m.

Medical Officer in attendance, 2.30 p.m.—3.30 p.m.

## 2. ANTE-NATAL CLINIC.

Every Wednesday and Friday afternoon, 2.30 p.m.—5 p.m.

## 3. ARTIFICIAL LIGHT CLINIC.

Every afternoon, except Wednesday, at 2.30 p.m.

## 4. SCHOOL CLINIC.

Open every day for all children attending School.

## 5. TREATMENT CLINIC.

Open every day for all children attending School.

## 6. DENTAL CLINIC.

Open every day for all children attending School.

Tuberculosis patients, expectant mothers and children under 5 years by special appointment.

## 7. TUBERCULOSIS DISPENSARY.

Adults every Tuesday and Friday at 10 a.m.

Children every Friday at 2.30 p.m.

## 8. TREATMENT CENTRE (VENEREAL DISEASES).

Clinics are held at the East Suffolk and Ipswich Hospital (Voluntary Hospital) as under :—

Adults—Males, Wednesday at 5.30 p.m., Friday at 1 p.m.

Females, Wednesday at 4.0 p.m., Friday at 2.30 p.m.

Children, Thursday at 11 a.m.

---

All the above Clinics are held at the Public Health Department, Elm Street, Ipswich, except where stated otherwise.



## STATISTICS AND SOCIAL CONDITIONS.

Area (acres)	...	...	...	...	...	8,112
Population, Census 1921	...	...	...	...	...	79,371
Population, Census 1931	...	...	...	...	...	87,557
No. of Inhabited Houses (1921)	...	...	...	...	...	17,764
No. of Inhabited Houses (at 31/3/1931) according to Rate Books	22,777					
No. of Families or Separate Occupiers (1921)	...	...	...	...	...	18,923
Rateable Value, March, 1931	...	...	...	...	...	£487,888
Sum represented by a Penny Rate, 1931	...	...	...	...	...	£1,867

EXTRACTS FROM VITAL STATISTICS OF THE  
YEAR 1931.

		Total.	M.	F.	Birth-Rate.
BIRTHS—Legitimate	...	1,303	668	635	15.6
„ Illegitimate	...	68	34	34	
					Rate per 1,000 Total Births.
STILLBIRTHS	...	50	27	23	36
					Death Rate.
DEATHS	...	1,029	487	542	11.73
Percentage of Total Deaths occurring in Public Institutions	...	31%			
Number of women dying in, or in consequence of, child-birth	...		From Sepsis	...	2
	...		From other causes	...	1
Death-rate of Infants under 1 year of age per 1,000 live Births :—					
Legitimate 59, Illegitimate 73	...	...	Total	59	
Deaths from Measles (all ages)	...	...	...	3	
Deaths from Whooping Cough (all ages)	...	...	...	7	
Deaths from Diarrhoea (under 2 years of age)	...	...	...	5	

## POPULATION.

The populations enumerated in Ipswich at each Census since the first in 1801 are set forth in this Table :—

Year.	Census Populations.			Increases Per Cent.	Females per 1,000 Males.
	Males.	Females.	Persons.		
1801	4,984	6,293	11,277	—	1,262
1811	6,064	7,606	13,670	21.2	1,254
1821	7,831	9,355	17,186	25.6	1,194
1831	9,169	11,032	20,201	17.5	1,203
1841	11,894	13,490	25,384	25.6	1,134
1851	15,474	17,440	32,914	29.6	1,127
1861	17,667	20,283	37,950	15.3	1,148
1871	20,047	22,900	42,947	13.1	1,143
1881	23,608	26,712	50,320	17.1	1,131
1891	26,658	30,702	57,360	13.9	1,151
1901	31,181	35,449	66,630	16.1	1,136
1911	34,980	38,952	73,932	10.9	1,113
1921	37,359	42,012	79,371	7.4	1,124
1931	41,343	46,214	87,557	10.3	1,117

The Registrar-General estimates that the population of Ipswich at the middle of 1931 was 87,770, which would give about 41,460 males and 46,310 females.

At the time of writing no further particulars of the 1931 Census are available, so that extended comment upon the results of the enumeration is held over until more information is forthcoming.

There is, however, one aspect of the population position that requires mention, although precise data are not, at the moment, available, and that is the age distribution of the people, which has, since about the beginning of this Century undergone a profound and highly significant change. The broad general fact is that the populations of to-day are

older than those of the last Century and continue to get older. This position has been brought about by the interplay of three main factors, viz. :

1. The decline in the Birth-rate, which has reduced the numbers of young people in the population, is now exhibiting its effect upon the age constitution of the people. The influence of this factor has been masked, in the past, by the decline in the Infant Mortality rate, which has led to the survival of many infants who would otherwise have died. This is now insufficient to neutralise the effect of the decline in the Birth-rate.
2. The improved conditions of life now existing are associated with dramatic declines in the Mortality rates at all ages under 50 and with considerable diminution between 50 and 70 years of age.
3. The effect of the decline in the Death-rates at the younger ages is to raise the average age of the population to a considerable degree. In addition there is the fact that not only do greater numbers of the population survive to the age of seventy, but these survivors show an increasing tendency to prolongation of life far over the 70 mark.

## HOUSING PROVISION.

The following Table, kindly supplied by Mr. McLauchlan, the Borough Surveyor, states number of houses built in the Borough during 1931, as compared with the total of the preceding 10 years.

Period.		Private Enterprise.	Local Authority.	Total.
1921	1930	3,072	1,849	4,921
	1931	289	116	405

## MARRIAGES.

679 Marriages were registered in Ipswich in 1931, or almost exactly the average annual number for the 10 years 1921—1930.

Periods.	No. of Marriages.	Marriage rates per 1000 living.	
		Ipswich.	England & Wales.
1841—1850	2,815	19.43	16.1
1851—1860	3,302	18.70	16.9
1861—1870	3,550	17.64	16.6
1871—1880	4,143	17.77	16.2
1881—1890	4,152	15.37	14.9
1891—1900	4,777	15.43	15.6
1901—1910	5,209	14.86	15.5
1911—1920	6,819	17.83	16.6
1921—1930	6,740	16.20	15.5
1841—1845	1,239	18.29	15.7
1846—1850	1,576	20.42	16.5
1851—1855	1,689	19.84	17.1
1856—1860	1,613	17.65	16.7
1861—1865	1,790	18.35	16.8
1866—1870	1,760	16.96	16.4
1871—1875	2,072	18.56	17.1
1876—1880	2,071	17.04	15.3
1881—1885	2,170	16.59	15.2
1886—1890	1,982	14.22	14.7
1891—1895	2,326	15.60	15.1
1896—1900	2,451	15.28	16.1
1901—1905	2,560	14.99	15.6
1906—1910	2,649	14.73	15.3
1911—1915	3,201	16.94	16.4
1916—1920	3,618	18.70	16.8
1921—1925	3,316	16.34	15.7
1926—1930	3,424	16.06	15.4
1921	701	17.63	16.9
1922	635	15.80	15.7
1923	662	16.31	15.2
1924	600	14.68	15.3
1925	718	17.34	15.2
1926	654	15.64	14.3
1927	675	15.98	15.7
1928	680	15.95	15.4
1929	714	16.59	15.8
1930	701	16.13	15.8
1931	679	15.48	15.6

The Marriage Rate for 1931 was the lowest recorded during the last 11 years, with the exception of 1924.

Lower rates have been recorded frequently within the time covered by our records, particularly during the industrial depression in the '80's of last Century and in the first 10 years of the present Century, but at no time has the birth yield per marriage been so low.

## BIRTHS.

1,371 births were registered in 1931 as compared with 1,468 in the previous year, and an average annual number of 1,457 for the five years 1926—1930, and of 1,542 for the five years 1921—1925.

The facts as to the number of births registered and the Birth-rates are set forth as follows :—

Periods.	Number.			Rates.	
	Males.	Females.	Persons.	Ipswich.	England and Wales.
1841—1850	4,783	4,608	9,391	32.7	32.6
1851—1860	6,088	5,837	11,925	33.7	34.1
1861—1870	6,805	6,488	13,293	33.2	35.2
1871—1880	8,005	7,606	15,611	33.4	35.4
1881—1890	8,619	8,485	17,104	31.6	32.4
1891—1900	9,058	8,729	17,787	28.7	29.9
1901—1910	9,586	9,212	18,798	26.8	27.2
1911—1920	8,436	8,102	16,538	21.6	21.8
1921—1930	7,602	7,396	14,998	18.0	18.3
1841—1845	2,036	2,056	4,092	30.2	32.3
1846—1850	2,747	2,552	5,299	34.4	32.8
1851—1855	2,914	2,864	5,778	33.9	33.9
1856—1860	3,174	2,973	6,147	33.6	34.4
1861—1865	3,308	3,144	6,452	33.1	35.1
1866—1870	3,497	3,344	6,841	32.9	35.3
1871—1875	3,820	3,646	7,466	33.4	35.5
1876—1880	4,185	3,960	8,145	33.5	35.3
1881—1885	4,258	4,230	8,488	32.5	33.5
1886—1890	4,361	4,255	8,616	30.9	31.4
1891—1895	4,444	4,339	8,783	29.5	30.5
1896—1900	4,614	4,390	9,004	28.1	29.3
1901—1905	4,899	4,719	9,618	28.2	28.2
1906—1910	4,687	4,493	9,180	25.5	26.3
1911—1915	4,481	4,271	8,752	23.2	23.6
1916—1920	3,955	3,831	7,786	20.1	20.1
1921—1925	3,829	3,883	7,712	19.0	19.9
1926—1930	3,773	3,513	7,286	17.0	16.7
1921	844	880	1,724	21.6	22.4
1922	773	813	1,586	19.7	20.6
1923	782	766	1,548	19.0	19.7
1924	735	698	1,433	17.4	18.8
1925	695	726	1,421	17.1	18.3
1926	777	763	1,540	18.4	17.8
1927	729	687	1,416	16.7	16.7
1928	768	656	1,424	16.7	16.7
1929	725	713	1,438	16.7	16.3
1930	774	691	1,468	16.8	16.3
1931	702	669	1,371	15.6	15.8

The Birth-rate recorded for 1931 was the lowest of which there is any record in the Borough. It was less than one half of any one of the rates recorded during the 45 years 1841—1885.

The causes of the decline in the Birth-rate have been discussed at some length in these Reports, so that at this time all that is required is to reiterate the statement that it is due, for practical purposes, to deliberate family limitation.

But another cause is now making its influence felt and that is the diminution in the number of females of child-bearing age in consequence of the decline in the number of female births.

At first there was little evidence of the influence of this fact, but it is now a very definite factor in the causation of that acceleration of the decline in the Birth-rate, which is such a conspicuous feature of the Birth statistics of recent years.

It is therefore not improbable that, in view of the diminution in the number of potential mothers, and the continuance in, and extension of, the practice of contraception amongst the community, the decline in the Birth-rate will continue though not quite at the same rate.

Not only are there fewer potential mothers, but there are also fewer potential fathers in consequence of the diminution in the number of male births.

Lastly, there is the effect of the War, which wiped out the husbands of a million women.

## ANNUAL NUMBER, SEX AND LEGITIMACY OF THE BIRTHS.

The experience since 1921 is shown in the Table thus :—

Year.	Legitimate.			Illegitimate.			All Births.			Males per 1,000 Females.
	M.	F.	P.	M.	F.	P.	M.	F.	P.	
1921	808	831	1,639	36	49	85	844	880	1,724	959
1922	731	777	1,508	42	36	78	773	813	1,586	958
1923	754	733	1,487	28	33	61	782	766	1,548	1,021
1924	700	669	1,369	35	29	64	735	698	1,433	1,053
1925	661	695	1,356	34	31	65	695	726	1,421	957
1926	748	735	1,483	29	28	57	777	763	1,540	1,018
1927	689	665	1,354	40	22	62	729	687	1,416	1,061
1928	736	625	1,361	32	31	63	768	656	1,424	1,170
1929	694	678	1,372	31	35	66	725	713	1,438	1,017
1930	742	669	1,411	32	25	57	774	694	1,468	1,115
1921-1930	7,263	7,077	14,340	339	319	658	7,602	7,396	14,998	1,028
1931	668	635	1,303	34	34	68	702	669	1,371	1,049

From this it appears that the proportion of Illegitimate Births registered in 1931 was fractionally in excess of the average experience of the previous 10 years.

### TWIN BIRTHS.

7 Twin Pregnancies occurred during 1931, resulting in the birth of 12 infants living and 2 stillborn.

These figures are much below the average of the previous 10 years.

Of the Pregnancies, 1 was a case of Twin Boys, both born alive, 1 of Mixed Twins, both born alive, and 5 of Twin Girls, 8 of whom were born alive and 2 stillborn, both belonging to the same pregnancy. This is the first case of double Female Stillbirth recorded in our series.

The proportion of Twin Births to total births was thus 0.8%, a figure much below the average.

14.2% of the potential lives were stillborn. This figure is above the average considerably

The local Twin record for the years 1921—1931 inclusive shows a total of 191 Twin Pregnancies representing 382 potential lives, of whom 340 or 88.9% were born alive and 42 or 10.9% were born dead.

In the 11 years recorded above, 34 out of 191 Pregnancies or 17.8% were associated with stillbirths, a figure which is far above the experience of single births.



# DEATHS AND DEATH-RATES FROM ALL CAUSES.

I give a Table showing the crude death-rates recorded for Ipswich as contrasted with those of England and Wales since 1841 :—

Periods.	No. of Deaths (Ipswich).			Crude Death-rates per 1000 living					
	M.	F.	P.	Males.		Females.		Persons.	
				Ipswich	E. & W.	Ipswich	E. & W.	Ipswich	E. & W.
1841—1850	3,245	3,324	6,569	23.85	23.1	21.60	21.6	22.67	22.4
1851—1860	3,863	3,987	7,850	23.38	23.1	21.60	21.4	22.21	22.2
1861—1870	4,440	4,480	8,920	23.66	23.7	20.82	21.4	22.12	22.5
1871—1880	5,273	5,044	10,317	24.15	22.7	20.33	20.1	22.08	21.4
1881—1890	5,053	5,016	10,069	20.00	20.3	17.40	18.1	18.62	19.1
1891—1900	5,649	5,529	11,178	19.54	19.3	16.74	17.1	17.99	18.2
1901—1910	5,335	5,231	10,566	16.16	16.4	14.07	14.4	15.00	15.4
1911—1920	5,270	5,283	10,553	14.56	15.9	13.11	13.0	13.80	14.3
1921—1930	4,604	4,778	9,382	11.73	12.9	10.86	11.4	11.27	12.1
1841—1845	1,402	1,417	2,819	22.15	22.1	19.70	20.6	20.81	21.4
1846—1850	1,843	1,907	3,750	25.43	24.1	23.32	22.6	24.31	23.3
1851—1855	1,989	1,971	3,960	24.91	23.5	21.84	21.8	23.26	22.7
1856—1860	1,874	2,016	3,890	21.97	22.6	20.69	21.0	21.29	21.8
1861—1865	2,235	2,314	4,549	24.53	23.7	22.21	21.5	23.32	22.6
1866—1870	2,205	2,166	4,371	22.79	23.7	19.56	21.2	21.07	22.4
1871—1875	2,586	2,440	5,026	24.78	23.3	20.52	20.7	22.51	22.0
1876—1880	2,687	2,604	5,291	23.58	22.1	20.17	19.5	21.76	20.8
1881—1885	2,496	2,505	5,001	20.37	20.5	18.01	18.3	19.12	19.4
1886—1890	2,557	2,511	5,068	19.69	20.0	16.88	17.8	18.19	18.9
1891—1895	2,841	2,760	5,601	20.46	19.8	17.32	17.7	18.77	18.7
1896—1900	2,808	2,769	5,577	18.74	18.8	16.20	16.6	17.38	17.7
1901—1905	2,692	2,636	5,328	16.80	17.1	14.55	15.0	15.60	16.0
1906—1910	2,643	2,595	5,238	15.57	15.6	13.66	13.8	14.56	14.7
1911—1915	2,765	2,597	5,362	15.43	15.4	13.07	13.2	14.19	14.3
1916—1920	2,505	2,686	5,191	13.71	16.5	13.14	12.8	13.41	14.4
1921—1925	2,200	2,330	4,530	11.50	13.0	10.85	11.4	11.16	12.2
1926—1930	2,404	2,448	4,852	11.95	12.9	10.87	11.4	11.38	12.1
1901	615	570	1,185	19.66	18.1	16.04	15.8	17.73	16.9
1902	465	504	969	14.69	17.4	14.04	15.2	14.34	16.3
1903	548	501	1,049	17.10	16.5	13.82	14.4	15.36	15.5
1904	553	532	1,085	17.06	17.4	14.54	15.3	15.72	16.3
1905	511	529	1,040	15.58	16.3	14.32	14.4	14.91	15.3
1906	545	525	1,070	16.42	16.5	14.08	14.5	15.18	15.5
1907	548	541	1,089	16.33	16.0	14.37	14.2	15.29	15.1
1908	525	534	1,059	15.47	15.8	14.05	13.9	14.72	14.8
1909	519	472	991	15.12	15.5	12.31	13.8	13.64	14.6
1910	506	523	1,029	14.58	14.4	13.51	12.7	14.02	13.5
1911	462	483	945	13.17	15.6	12.37	13.7	12.75	14.6
1912	582	555	1,137	16.40	14.2	14.08	12.6	15.18	13.4
1913	567	488	1,055	15.80	14.8	12.27	12.9	13.94	13.8
1914	546	518	1,064	15.05	14.9	12.90	13.1	13.92	14.0
1915	608	553	1,161	16.70	17.7	13.70	14.0	15.12	15.7
1916	506	521	1,027	13.90	16.6	12.87	12.5	13.36	14.3
1917	521	533	1,054	14.32	17.1	13.12	12.1	13.69	14.2
1918	540	606	1,146	14.84	20.1	14.88	15.2	14.86	17.3
1919	488	527	1,015	13.36	15.7	12.86	12.6	13.09	14.0
1920	450	499	949	12.17	13.5	12.01	11.5	12.09	12.4
1921	432	459	891	11.54	13.0	10.90	11.3	11.20	12.1
1922	448	526	974	11.84	13.6	12.37	12.0	12.12	12.8
1923	411	427	838	10.75	12.4	9.94	10.9	10.32	11.6
1924	398	403	801	10.30	12.9	9.29	11.5	9.77	12.2
1925	511	515	1,026	13.09	12.9	11.76	11.4	12.39	12.2
1926	440	429	869	11.16	12.4	9.70	10.9	10.39	11.6
1927	516	544	1,060	12.95	13.1	12.19	11.6	12.55	12.3
1928	481	479	960	11.95	12.5	10.63	10.9	11.26	11.7
1929	505	545	1,050	12.43	14.2	11.99	12.7	12.19	13.4
1930	462	451	913	11.23	12.3	9.83	10.7	10.50	11.4
1931	487	542	1,029	11.76	—	11.71	—	11.73	12.3



Thus 1931 provides a mortality experience from all causes above the average of the decennial and quinquennial periods (1921—1930), but considerably below those of any annual, quinquennial or decennial period prior to 1921.

The figures for 1931 show that the male and female death-rates were practically the same, which is unusual, the male death-rate as a rule exceeding the female considerably, although the tendency in recent years has been for the sex rates to approach nearer to one another.

The Table indicates that the quinquennial average death-rates of persons have undergone a continuous series of declines of varying degree between 1891 and 1925, except that in the period 1926—1930 there was a slight rise. This was almost entirely due to a rise in the male death-rate, the female rate remaining practically stationary.

It is consistent with the behaviour of death-rates that the present position of the average female death-rate may point to a similar rate for males in the near future, and thus the death-rate may not yet have reached its lowest point.

Against a further decline is the definite fact of the ageing of the population, the effect of which must be to raise the death rate in the near future merely in the normal course of nature.

Thus the position may be summed up in the statement that whilst the female death-rate points to a further decline in the male rate, this will be offset by the inevitable effects of the ageing of the population.

In other words, the continuous decline in the death-rate that has been the conspicuous feature of the vital statistics of recent years is coming to an end.

## QUARTERLY DEATH-RATES.

The following Table summarises the facts and permits of comparison with the experience of the whole country :—

Decennial Periods.	March.		June.		September.		December.	
	Death-rates.		Death-rates.		Death-rates.		Death-rates.	
	Ipswich	England & Wales.	Ipswich	England & Wales.	Ipswich	England & Wales.	Ipswich	England & Wales.
1841—1850	24.05	24.7	21.12	22.0	23.09	21.0	22.44	21.7
1851—1860	23.61	24.7	20.56	22.1	22.34	20.3	22.45	21.9
1861—1870	23.84	25.2	20.38	21.8	22.18	21.0	22.26	22.1
1871—1880	24.05	23.7	20.81	20.9	21.60	19.6	22.07	21.3
1881—1890	20.92	21.6	17.15	18.7	17.18	17.3	19.29	19.1
1891—1900	20.69	20.7	15.99	17.6	18.17	17.0	17.41	17.7
1901—1910	17.84	17.7	13.89	14.6	13.53	13.8	15.15	15.4
1911—1920	17.15	17.2	12.84	13.6	11.32	11.8	13.93	15.0
1921—1930	14.83	15.5	10.42	11.7	8.82	9.5	11.12	11.8
1931	16.10	16.5	10.93	11.5	9.41	9.6	10.54	11.7

Thus in 1931 there was excessive mortality in the March quarter as compared with the average experience of the previous decennium, which was by far the lowest recorded.

The June and September Quarters of 1931 both record higher rates than the averages for the corresponding quarters of the previous decennial period, which again were by far the lowest recorded for either.

On the other hand the mortality for the December quarter of 1931 was considerably below the average of the preceding decennium.

### MONTHLY DEATH-RATES.

The Table indicates the Monthly Death-rates since 1841.

The figures for 1841—1880 are the average death-rates of persons for each month for the whole period and form a substantial basis for review of the case.

Month	1841— 1880	1881— 1900.	1901— 1910	1911— 1920.	1921— 1930.	1931.	Percentage Pro- portion 1921-1930 as compared with 1841-1880. Decrease.
January	24.02	21.52	18.64	15.81	15.60	12.46	36%
February	24.21	20.37	18.19	19.22	15.23	16.87	38%
March	23.40	21.49	16.74	16.61	13.70	18.89	42%
April	21.88	18.36	14.95	14.34	11.70	12.14	47%
May	20.95	16.33	14.16	12.86	9.98	8.97	53%
June	19.25	14.89	12.29	11.32	9.61	11.73	51%
July	18.00	15.15	11.96	10.57	9.03	9.51	50%
August	23.11	19.08	14.01	11.43	8.80	8.73	62%
September	25.66	18.95	14.64	12.01	8.61	9.93	66%
October	21.59	17.12	13.66	12.13	10.06	10.05	54%
November	21.17	17.37	15.28	16.08	10.84	10.06	49%
December	24.05	20.45	16.50	13.65	12.48	10.85	49%
Whole Year	22.27	18.33	15.00	13.80	11.27	11.73	50%

This shows in the clearest possible manner the close relationship that exists between the period of the year and the death-rate, or, in other words, between the climatological and meteorological conditions of each month of the year and the corresponding death-rates. The average death-rates for each month of the year occupy much the same relative positions to-day as they did 50 years ago, although the rates have declined on the average 50%.

The case of the months of August and September differs from that of all the others, in that the particular group of diseases which caused the heavy mortalities recorded in the period 1841-1880 have now practically disappeared, with the result that what were formerly the most fatal months of the year are now the least fatal.

The highest monthly mortality in 1931 was recorded in March, followed by February, January and April.

The lowest rates were recorded in August, May, July and September.

The mortality recorded for the month of June was out of proportion.

There was no particular disease or group of diseases associated therewith, but rather a slight increase in each of the principal groups.

The particular cause of the high figure for March was the excessive mortality from Respiratory diseases.

## SUMMARY OF THE PRINCIPAL CAUSES OF DEATH AT ALL AGES REGISTERED IN IPSWICH IN 1931.

Causes of Death.	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
Heart Diseases	89	2.14	110	2.37	199	2.26
Cancer	47	1.13	86	1.85	133	1.51
Bronchitis	34	.81	54	1.16	88	1.00
Tuberculosis	42	1.11	46	.99	88	1.00
Cerebral Hemorrhage, etc.	38	.91	41	.88	79	.90
Pneumonia	26	.62	22	.47	48	.54
Violence	32	.77	11	.21	43	.49
7 Principal Zymotics	17	.40	25	.54	42	.47
Diseases of Early Infancy	21	.50	17	.36	38	.43
Senility	12	.28	21	.45	33	.37
Bright's Disease	12	.28	13	.28	25	.28
Arterio Sclerosis	10	.24	10	.21	20	.22
All Others	107	2.57	86	1.85	193	2.20
Total	487	11.76	542	11.71	1029	11.73

In general terms the groups of diseases included in this Table show no material departure from the average experience. The most notable variation is the reappearance of the group of the 7 Principal Zymotics, owing to the prevalence of Diphtheria.

Heart Diseases easily lead the list, not because diseases of the Heart are really more frequent than they were, but because this group is displacing Senile Decay in particular. The tendency nowadays, I think rightly, is to ascribe death to some definite condition rather than to use such general terms as Senile Decay.

This accounts not only for the prominence of the Heart group of diseases, but also for the lowly position now taken by Senility.

Cancer is the second cause of death in this Borough at the moment, but the rate was not as high as in the previous year.

Bronchitis comes next with particular incidence upon elderly women.

Tuberculosis is slowly receding.

Violence caused practically the same number of deaths as in the previous year.

The decline in the deaths from the diseases of Early Infancy (Prematurity, Atrophy, Debility) is maintained.

## MORTALITY, 70 YEARS OF AGE AND OVER.

The Table shows the sex distribution of the deaths, death-rates per 1,000 living, and the proportion of deaths at these ages to deaths at all ages in terms of Decennia since 1841, Quinquennia since 1901, and approximate Annual Rates since 1926:—

Periods.	Deaths and Death-rates over 70 Years of Age.								
	No. of Deaths.			Death-Rates			Proportions of total Deaths.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.
1841—1850	429	537	966	121.99	116.09	118.66	13.2	16.2	14.7
1851—1860	514	656	1170	117.99	108.27	112.32	13.3	16.5	14.9
1861—1870	625	772	1397	118.25	100.49	107.72	14.1	17.2	15.6
1871—1880	802	1040	1842	129.54	118.45	122.96	15.2	20.7	17.8
1881—1890	856	1060	1916	121.06	108.14	113.97	16.9	21.1	19.0
1891—1900	984	1297	2281	116.38	111.49	113.51	17.4	23.5	20.4
1901—1910	1130	1463	2593	115.42	104.44	108.90	21.1	28.0	24.5
1911—1920	1268	1702	2970	114.71	96.16	103.28	24.1	32.1	28.1
1921—1930	1477	2045	3522	111.9	90.05	98.08	32.0	42.8	37.5
1901—1905	529	665	1194	111.9	100.6	105.3	19.6	25.2	22.4
1906—1910	601	798	1399	119.8	107.0	112.2	22.7	30.7	26.7
1911—1915	656	838	1494	122.8	100.4	109.1	23.7	32.2	27.8
1916—1920	612	864	1476	107.0	92.9	98.2	24.4	32.1	28.4
1921—1925	651	970	1621	*101.7	*89.2	*93.8	29.6	41.6	35.7
1926—1930	826	1075	1901	*121.5	*90.8	*101.9	34.3	43.9	39.1
1926	146	176	322	*113.0	*79.6	*92.0	33.2	40.5	37.0
1927	170	229	399	*121.2	*96.6	*105.8	33.1	41.9	39.6
1928	158	212	370	*112.7	*89.8	*98.1	32.8	44.2	38.5
1929	184	257	441	*131.2	*108.8	*117.2	36.6	47.1	42.1
1930	168	201	369	*119.0	*90.0	*104.0	36.3	44.5	40.4
1931	179	232	411	*133.3	*100.3	*112.2	36.7	42.8	39.9

\* Approximate.

Thus in 1931, the proportion of male deaths was above the average of the previous 5 years, but that of the female, below. For persons, the proportion was fractionally higher than the quinquennial average.

At the moment the female proportion has ceased to increase, in fact has declined from the high-water mark of 1929, whereas the male proportion is fractionally the highest yet recorded.

In general terms rather more than one male in three dies at the age of 70 or more, and rather more than one female in two and one half.

The rates shown in the Table for the last few years are approximations, because the populations living at these ages are not yet available.

## SUMMARY OF THE CAUSES OF DEATH 70 YEARS OF AGE AND OVER.

Causes.				Males.	Females.	Persons.
Diseases of the Heart	...			53	74	127
Bronchitis	...			20	38	58
Cancer	..	...		17	32	49
Cerebral Hæmorrhage	...			18	23	41
Senility	...			12	21	33
Arterio Sclerosis	...			8	6	14
Bright's Disease...	...			7	5	12
Pneumonia	...			5	4	9
All others	...			39	29	68
Total all causes				179	232	411

The diseases in this Table are the usual for the group.

As compared with 1930, there was a considerable increase in the number of deaths referred to Diseases of the Heart. This is largely a matter of classification, chiefly at the expense of Senility.

There was a slight increase in the number of deaths ascribed to Bronchitis and a small decrease in the deaths from Cancer.

The others occupy exactly the same positions in the Table as in 1930.

Cancer was responsible for 11.9% of the deaths over 70 years of age, as compared with 14.6% in 1930, 11.5% in 1929, and 13.8% in 1928.

The essential feature of the diseases associated with death at these ages is tissue degeneration.

## DEATHS FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES.

Viz. :—Enteric Fever, Smallpox, Scarlet Fever, Diphtheria, Measles, Whooping Cough, and Diarrhœa, under two years of age.

Periods	Males		Females		Persons	
	Nos.	Rates	Nos.	Rates	Nos.	Rates
1841—1850	401	2.94	383	2.48	784	2.70
1851—1860	438	2.64	471	2.50	909	2.57
1861—1870	523	2.73	539	2.50	1062	2.61
1871—1880	737	3.37	688	2.77	1425	3.04
1881—1890	514	2.03	528	1.83	1042	1.92
1891—1900	740	2.56	685	2.07	1425	2.29
1901—1910	486	1.47	443	1.19	929	1.31
1911—1920	347	.95	291	.72	638	.83
1921—1930	130	.33	120	.27	250	.30
1841—1845	120	1.88	102	1.41	222	1.64
1846—1850	281	3.87	281	3.43	562	3.64
1851—1855	229	2.86	249	2.75	478	2.80
1856—1860	209	2.45	222	2.27	431	2.36
1861—1865	309	3.40	340	3.26	649	3.32
1866—1870	214	2.21	199	1.80	413	1.99
1871—1875	389	3.72	339	2.85	728	3.26
1876—1880	348	3.05	349	2.70	697	2.86
1881—1885	215	1.75	253	1.82	468	1.79
1886—1890	299	2.30	275	1.84	574	2.06
1891—1895	321	2.31	304	1.90	625	2.09
1896—1900	419	2.79	381	2.23	800	2.49
1901—1905	280	1.74	244	1.34	524	1.53
1906—1910	206	1.21	199	1.04	405	1.12
1911—1915	230	1.28	193	.97	423	1.12
1916—1920	117	.64	98	.48	215	.55
1921—1925	65	.31	71	.33	136	.33
1926—1930	65	.32	49	.21	114	.26
1926	12	.30	1	.02	13	.15
1927	13	.32	14	.31	27	.32
1928	16	.39	8	.17	24	.28
1929	9	.22	12	.26	21	.24
1930	15	.36	14	.30	29	.33
1931	17	.40	25	.54	42	.47



This remarkable Table has been examined from various points of view in previous Reports, so that it is unnecessary to do more than touch, in this Report, on some of its salient features.

The average mortality from all causes at all ages has been shown to have declined about 50 % since the period 1841-1850.

The Table now under consideration shows that this particular group has declined about 800% in the same period, and if the quinquennium 1926-1930 be compared with 1846-1850, the decline reaches the very high proportion of 1300%.

The prevalence of, and the mortality from, the Infections, are regarded as indices of the health conditions of the people, and this Table affords convincing evidence of the enormous change that has occurred within the period covered by our statistics.

Although the figures in the Table are not to be regarded as absolute, they nevertheless contain so much of the truth as to be of the greatest value for comparative purposes.

The present position of the group is explained by the absence of fatal Small-pox, the spectacular decline in the mortality from Diarrhoea of children under 2 years of age, and the disappearance of Endemic Typhoid Fever.

Since 1880 there has been a very great decline indeed in the mortality from Scarlet Fever.

Whooping Cough and Measles both show substantially diminished death-rates, whilst the average mortality from Diphtheria has declined very greatly since 1885.

Thus all the members of the group have played their part in the decline.

## SMALLPOX.

The Table gives the history of Smallpox in Ipswich since 1841.

It records 5 great epidemics, viz., 1848-1849 (93), 1854-1855 (81), 1860-1861 (45), 1869-1870 (34), and 1871-1872 (149). The last of these was the greatest.

The last fatal case of Smallpox in Ipswich occurred in 1893.

Periods.	Males.		Females.		Persons.	
	No.	Rate.	No.	Rate.	No.	Rate.
1841—1850	44	.32	59	.38	103	.35
1851—1860	59	.35	51	.27	110	.31
1861—1870	27	.14	30	.14	57	.14
1871—1880	79	.36	76	.30	155	.33
1881—1890	2	.007	—	—	2	.003
1891—1900	1	.003	—	—	1	.001
1901—1910	—	—	—	—	—	—
1911—1920	—	—	—	—	—	—
1921—1930	—	—	—	—	—	—
1841—1845	5	.07	4	.05	9	.06
1846—1850	39	.53	55	.67	94	.60
1851—1855	47	.58	36	.39	83	.48
1856—1860	12	.14	15	.15	27	.14
1861—1865	11	.12	10	.09	21	.10
1866—1870	16	.16	20	.18	36	.17
1871—1875	76	.72	73	.61	149	.66
1876—1880	3	.02	3	.02	6	.02
1881—1885	2	.01	—	—	2	.00
1886—1890	—	—	—	—	—	—
1891—1895	1	.00	—	—	1	.00
1896—1900	—	—	—	—	—	—
1901—1905	—	—	—	—	—	—
1906—1910	—	—	—	—	—	—
1911—1915	—	—	—	—	—	—
1916—1920	—	—	—	—	—	—
1921—1925	—	—	—	—	—	—
1926—1930	—	—	—	—	—	—
1926	—	—	—	—	—	—
1927	—	—	—	—	—	—
1928	—	—	—	—	—	—
1929	—	—	—	—	—	—
1930	—	—	—	—	—	—
1931	—	—	—	—	—	—

Thus it is evident that Smallpox has ceased for a period of nearly 40 years to play any part in the production of the death-rate, but it would be extremely unwise to conclude from this that Smallpox may not revert to the type that caused the great epidemics recorded in the Table.

Smallpox was a very severe disease, which has now become very mild. It is just as likely that the mild variety will revert to the severe.

I draw attention to the fact that the epidemics of 1848-1849 and 1854-1855 show a fundamental difference from the epidemics of the 1860-1872 period.



In the first two epidemics the weight fell upon young children, no less than 58.7% of the deaths recorded being of children under 5 years of age.

On the other hand the epidemics since 1860 exhibited their greatest severity at ages over 5 years of age, only 18.8% of the deaths recorded in this series being under 5 years of age.

### ENTERIC FEVER.

There were no deaths from Enteric Fever in 1931.

The Table is self explanatory.

Periods.	Males.		Females.		Persons.	
	No.	Rate.	No.	Rate.	No.	Rate.
1841—1850	8	.05	4	.02	12	.04
1851—1860	11	.06	13	.06	24	.06
1861—1870	21	.10	19	.08	40	.09
1871—1880	52	.23	49	.19	101	.21
1881—1890	32	.12	33	.11	65	.12
1891—1900	66	.22	54	.16	120	.19
1901—1910	40	.12	38	.10	78	.11
1911—1920	2	.005	4	.009	6	.007
1921—1930	2	.005	3	.006	5	.006
1841—1845	—	—	1	.01	1	.007
1846—1850	8	.11	3	.03	11	.07
1851—1855	4	.05	6	.06	10	.05
1856—1860	7	.08	7	.07	14	.07
1861—1865	9	.09	14	.13	23	.11
1866—1870	12	.12	5	.04	17	.08
1871—1875	30	.28	23	.19	53	.23
1876—1880	22	.19	26	.20	48	.19
1881—1885	21	.17	22	.15	43	.16
1886—1890	11	.08	11	.07	22	.07
1891—1895	27	.19	28	.17	55	.18
1896—1900	39	.26	26	.15	65	.20
1901—1905	35	.21	30	.16	65	.19
1906—1910	5	.02	8	.04	13	.03
1911—1915	1	.005	2	.01	3	.007
1916—1920	1	.005	2	.009	3	.007
1921—1925	1	.005	2	.009	3	.007
1926—1930	1	.004	1	.004	2	.004
1926	—	—	—	—	—	—
1927	1	.02	1	.02	2	.02
1928	—	—	—	—	—	—
1929	—	—	—	—	—	—
1930	—	—	—	—	—	—
1931	—	—	—	—	—	—

The value of this series is open to considerable question, especially the figures for 1841-1870, which certainly greatly understate the case.

In my Report for 1929 a Table was given showing the deaths and death-rates from various ill-defined Fevers, and it was brought out that as soon as the terms Enteric and Typhoid Fever became applied with something approaching unanimity, the ill-defined group underwent rapid diminution and finally disappeared at the end of the last Century.

There is no doubt that a high proportion of the ill-defined group can be referred to the Enteric Fever series with corresponding increases in the rates recorded for Enteric.

The position, therefore, is that the low rates recorded for the first 30 years of the series were due to non-recognition, the rates for the period 1871-1905 represented something nearer the truth, whilst those recorded for the last 25 years represent the definite improvement that has taken place in the prevalence of this disease. They are due to the fact that the causes of Endemic Enteric Fever have been mastered, and it is reasonable to believe that this particular scourge will exhibit itself in the future in the form of local outbreaks, unrelated to endemicity.

Incidentally the last two outbreaks in Ipswich (1925 and 1930) were due to *Bacillus Paratyphoid B*.

### SCARLET FEVER.

3 deaths were ascribed to Scarlet Fever in 1931.

Periods.	Males.		Females.		Persons	
	No.	Rate.	No.	Rate.	No.	Rate.
1841—1850	53	.38	67	.43	120	.41
1851—1860	56	.33	64	.34	120	.33
1861—1870	153	.79	151	.70	304	.75
1871—1880	101	.46	99	.39	200	.42
1881—1890	18	.07	20	.06	38	.07
1891—1900	21	.07	31	.09	52	.08
1901—1910	4	.01	11	.02	15	.02
1911—1920	26	.07	18	.04	44	.05
1921—1930	3	.007	6	.01	9	.01
1841—1845	16	.25	20	.27	36	.26
1846—1850	37	.51	47	.57	84	.54
1851—1855	27	.33	39	.43	66	.38
1856—1860	29	.33	25	.25	54	.29
1861—1865	115	1.26	118	1.13	233	1.19
1866—1870	38	.39	33	.29	71	.34
1871—1875	59	.56	43	.36	102	.45
1876—1880	42	.36	56	.43	98	.40
1881—1885	16	.13	20	.14	36	.13
1886—1890	2	.01	—	—	2	.00
1891—1895	19	.13	18	.11	37	.12
1896—1900	2	.01	13	.07	15	.04
1901—1905	1	.00	5	.02	6	.01
1906—1910	3	.01	6	.03	9	.02
1911—1915	23	.12	15	.07	38	.10
1916—1920	3	.01	3	.01	6	.01
1921—1925	1	.00	5	.02	6	.01
1926—1930	2	.01	1	.00	3	.00
1926	—	—	—	—	—	—
1927	—	—	—	—	—	—
1928	1	.02	—	—	1	.01
1929	1	.02	—	—	1	.01
1930	—	—	1	.02	1	.01
1931	—	—	3	.06	3	.03

This Table shows two distinct and separate phases in the Scarlet Fever history of Ipswich since 1841.

There was, in the first place, a period of high mortality experience from 1841-1885. During this period there were 8 major epidemics. The greatest of these occurred in 1863-1864. This was an epidemic which claimed at least 229 victims, and was something of which the inhabitants of the Borough at the present day have not the slightest conception. It was Scarlet Fever at its worst, and it tells what the worst can be.

This outbreak was followed six years later by a period of 9 years of successive epidemics of great severity. There were three waves during this period which came to an end in 1879. During these 9 years 230 persons died from Scarlet Fever.

According to the Reports of the Medical Officer of Health at that time the disease became milder between 1881 and 1885 and between 1886 and 1890 it practically disappeared. Thus there were only two known cases in the Borough in 1889. In other words, the old type of disease definitely died out between 1886 and 1890.

The second phase began about 1891 and continues at the moment of writing. During this period there have been two major epidemics. The first of these occurred in 1893-1894, and cost 27 lives, and the second in 1914-1915 with 32 deaths. It is obvious that the type of disease in these epidemics must have been quite different from that which prevailed in the great epidemics of 1860-1880.

It will have been noted that the change in the type of the disease occurred some years before notification came into force, so that that factor and the steps that follow from it had nothing to do with the change.

## DIPHTHERIA.

24 deaths were ascribed to Diphtheria in 1931—the highest recorded in any one year since 1920.

Periods.	Males.		Females.		Persons.	
	No.	Rate.	No.	Rate.	No.	Rate.
1841—1850	19	.13	16	.10	35	.12
1851—1860	23	.13	27	.14	50	.14
1861—1870	43	.22	57	.26	100	.24
1871—1880	56	.25	53	.21	109	.23
1881—1890	77	.30	91	.31	168	.31
1891—1900	72	.24	85	.25	157	.25
1901—1910	57	.17	45	.12	102	.14
1911—1920	69	.19	58	.14	127	.16
1921—1930	27	.06	25	.05	52	.06
1841—1845	7	.10	7	.09	14	.10
1846—1850	12	.16	9	.10	21	.13
1851—1855	7	.08	5	.05	12	.07
1856—1860	16	.18	22	.22	38	.20
1861—1865	24	.26	48	.46	72	.36
1866—1870	19	.19	9	.08	28	.13
1871—1875	15	.14	17	.14	32	.14
1876—1880	41	.35	36	.27	77	.31
1881—1885	20	.16	27	.19	47	.17
1886—1890	57	.43	64	.43	121	.43
1891—1895	51	.36	52	.32	103	.34
1896—1900	21	.14	33	.19	54	.16
1901—1905	30	.18	28	.15	58	.16
1906—1910	27	.15	17	.09	44	.12
1911—1915	35	.19	24	.12	59	.15
1916—1920	34	.18	34	.16	68	.17
1921—1925	9	.04	16	.07	25	.06
1926—1930	18	.08	9	.04	27	.06
1926	3	.07	—	—	3	.03
1927	1	.02	—	—	1	.01
1928	3	.07	1	.02	4	.04
1929	6	.14	5	.11	11	.12
1930	5	.12	3	.06	8	.09
1931	13	.31	11	.23	24	.27

The death-rate in 1931 was the highest recorded in this century, with the exceptions of 1920 and 1901.

The type of the disease was the most severe that has been experienced in the Borough for many years.

I find that in 1928 I referred to the fact that the type had changed in that year, and that Cardiac and Nervous complications tended to show a greater degree of frequency and severity. This has been corroborated by the experience of each year since, culminating in the year under review.

A very distressing feature of the experience of 1931 was the occurrence of Respiratory Paralysis in a number of cases, leading to fatal results.

There was a notable increase in the number of cases with excessive Cervical Glandular enlargement, the old "Bull Neck" type. These, so far as the local disease was concerned, did very well on Mixed Diphtheria Antitoxin and Antistreptococcus Serum, but they showed a high proportion of Cardiac and Nervous complications. The convalescence, even of the mild cases, was prolonged.

It was found that the average doses of Diphtheria Antitoxin, which had been found adequate in relation to type, were no longer effective, and it became necessary to treble the quantity.

Thus Diphtheria is also one of the diseases that has changed its type, but in the direction of increased virulence.

There is evidence in the Table pointing to a similar change having occurred before. Thus there was very high Diphtheria Mortality in 1862 and 1863. As this was also a period of very excessive Scarlet Fever Mortality, there was doubtless confusion between severe Scarlet Fever and Diphtheria.

We are on much more solid ground in ascribing the very high mortalities of 1889 and 1890 to increase in virulence. This was of course unchecked by Antitoxin.

Again in 1894 and 1895 the same thing occurred, also unchecked by Antitoxin.

Since 1895 Antitoxin has come into play, so that the mortalities recorded since that date have experienced the benefit of the treatment.

In this relation the column showing the case fatality is of great interest. It is shown that in spite of the clinical severity of the disease, treatment has been successful in keeping the fatality down at a level undreamt of in the Pre-Antitoxin era.

## WHOOPIING COUGH.

The history of the death-rates from Whooping Cough in Ipswich is indicated in the Table :—

Periods.	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
1841—1850	76	.55	89	.57	165	.56
1851—1860	66	.39	98	.52	164	.46
1861—1870	82	.42	97	.45	179	.44
1871—1880	126	.57	139	.56	265	.56
1881—1890	110	.43	138	.47	248	.45
1891—1900	98	.34	102	.30	200	.32
1901—1910	75	.22	92	.24	167	.23
1911—1920	64	.17	73	.18	137	.17
1921—1930	33	.08	39	.08	72	.08
1841—1845	30	.47	31	.43	61	.45
1846—1850	46	.63	58	.70	104	.67
1851—1855	26	.32	53	.58	79	.46
1856—1860	40	.46	45	.46	85	.46
1861—1865	33	.36	37	.35	70	.35
1866—1870	49	.50	60	.54	109	.52
1871—1875	60	.57	60	.50	120	.53
1876—1880	66	.57	79	.61	145	.59
1881—1885	44	.35	76	.54	120	.45
1886—1890	66	.50	62	.41	128	.45
1891—1895	52	.37	50	.31	102	.34
1896—1900	46	.30	52	.30	98	.30
1901—1905	45	.28	45	.24	90	.26
1906—1910	30	.17	47	.24	77	.21
1911—1915	39	.21	43	.21	82	.21
1916—1920	25	.13	30	.14	55	.14
1921—1925	17	.09	21	.09	38	.09
1926—1930	16	.07	18	.08	34	.08
1926	4	.10	—	—	4	.04
1927	8	.20	10	.22	18	.21
1928	3	.07	1	.02	4	.04
1929	1	.02	6	.13	7	.08
1930	—	—	1	.02	1	.01
1931	—	—	7	.15	7	.07

It appears from this Table that the death-rate from Whooping Cough continued high from the beginning up to 1886-1890, due allowance being made for the fluctuations necessarily incidental to limited communities.

Since 1891 the death-rate has steadily declined until at the moment it has reached and is maintained at by far the lowest point yet recorded.

The fatality of Whooping Cough is definitely seasonal so far as local experience goes, the highest mortalities being recorded for the months of January, February and March, followed closely by April and December, and then May. The lowest mortalities are recorded for the summer months, the death-rates recorded for these being much below one half of those for the winter months.

The fatality begins to rise in November. In other words, the curve of Whooping Cough fatality follows quite closely that of Pneumonia and Acute Bronchitis.

There is no evidence of real value suggesting that the present state of affairs is due to alteration in the type of the disease; neither is there satisfactory evidence that the disease is less prevalent.

On the other hand 97.3% of the total deaths from Whooping Cough are under 5 years of age and 73.1% under 2 years of age.

It is therefore not at all improbable that some considerable proportion of the improvement in the death-rate from this disease is associated with the great change that has taken place in the mortality experience from all causes at these ages which is the characteristic of the vital statistics of the present day.

The available evidence points to improved conditions of life and improvement in the management of young children as the factors of most importance in accounting for the present position of the Whooping Cough death-rate.



## MEASLES.

There were three deaths from Measles in 1931, the aftermath of the 1930 outbreak.

Periods.	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
1841—1850	52	.38	35	.22	87	.30
1851—1860	39	.23	32	.17	71	.20
1861—1870	38	.19	36	.16	74	.18
1871—1880	43	.19	36	.14	79	.16
1881—1890	103	.40	93	.32	196	.36
1891—1900	102	.35	79	.22	181	.29
1901—1910	103	.31	90	.24	193	.27
1911—1920	70	.19	52	.12	122	.15
1921—1930	26	.06	21	.04	47	.05
1841—1845	29	.45	12	.16	41	.30
1846—1850	23	.31	23	.28	46	.29
1851—1855	21	.26	15	.16	36	.21
1856—1860	18	.21	17	.17	35	.19
1861—1865	27	.29	26	.24	53	.27
1866—1870	11	.11	10	.09	21	.10
1871—1875	15	.14	12	.10	27	.12
1876—1880	28	.24	24	.18	52	.21
1881—1885	27	.22	27	.19	54	.20
1886—1890	76	.58	66	.44	142	.50
1891—1895	30	.21	34	.21	64	.21
1896—1900	72	.48	45	.26	117	.36
1901—1905	49	.30	40	.22	89	.26
1906—1910	54	.31	50	.26	104	.28
1911—1915	45	.25	37	.18	82	.21
1916—1920	25	.13	15	.07	40	.10
1921—1925	10	.05	12	.05	22	.05
1926—1930	16	.07	9	.04	25	.06
1926	—	—	—	—	—	—
1927	—	—	—	—	—	—
1928	8	.19	3	.06	11	.12
1929	—	—	—	—	—	—
1930	8	.19	6	.13	14	.16
1931	1	.02	2	.04	3	.03

From this it is evident that the mortality from Measles during the last 10 years was far below anything recorded previously.

A more detailed examination of the series indicates three periods in the Measles history :—

1. A period from 1841-1875, in which the mortality declined in the usual fluctuating manner, from its maximum in 1841-1845 to its minimum between 1866-1875. The value of this series is open to considerable doubt, but it may be such as to permit of a general conclusion.



2. The period from 1876-1915. In this series the fluctuations showed their maximum in the period 1886-1890, declining irregularly to the period 1911-1915, in which the death-rate was the same as that of 1876-1880. During the whole of this time the tendency to Biennial Epidemics was well marked. The worst of these was that of 1890-1891, which caused at least 89 deaths.

The last severe epidemic occurred in 1912 (51 deaths).

3. The final period includes the last 15 years, during which the Measles mortality has reached and maintained itself at a rate hitherto unknown.

The Biennial character was shown in the epidemics of 1918 and 1920, though the mortality was low.

The next fatal epidemic occurred in 1925, following on four years of extremely low mortality experience, in which the Biennial character had disappeared. This was followed by 2 years of complete absence of fatal Measles.

Then came an epidemic of low fatality in 1928, followed two years later by the outbreak at the end of 1930 and the beginning of 1931.

Thus the recent phase of Measles indicates the breaking of the Biennial character of the epidemics and the presence of a type of disease of low fatality.

In this respect an interesting parallel exists between the present phase and that of 1866-1875, but this should not be stressed.

Making every allowance for improved conditions of life and improved management of the disease, there is definite evidence that the present type of the disease is mild as compared with that prevailing at the end of the last Century and the beginning of this.

We should take warning from the experience shown in the Table and refrain from jumping to rash conclusions as to the permanence of the existing state of affairs.

Finally, all the evidence that has been accumulated shows that there are far fewer deaths from Measles than there were, but there is no reason to associate the decline in the death-rate with a corresponding decline in its prevalence.

# ZYMOTIC DIARRHŒA UNDER 2 YEARS OF AGE.

5 deaths were recorded in Ipswich in 1931.

Periods.	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
1841—1850	149	1.09	113	.73	262	.90
1851—1860	184	1.11	186	.98	370	1.04
1861—1870	159	.83	149	.69	308	.76
1871—1880	280	1.28	236	.95	516	1.10
1881—1890	172	.68	153	.53	325	.60
1891—1900	380	1.31	334	1.01	714	1.14
1901—1910	207	.62	167	.41	374	.53
1911—1920	116	.32	86	.21	202	.26
1921—1930	39	.09	26	.05	65	.07
1841—1845	33	.51	27	.37	60	.44
1846—1850	116	1.59	86	1.05	202	1.30
1851—1855	97	1.21	95	1.05	192	1.12
1856—1860	87	1.02	91	.93	178	.97
1861—1865	90	.99	87	.83	177	.90
1866—1870	69	.71	62	.55	131	.63
1871—1875	134	1.28	111	.93	245	1.09
1876—1880	146	1.28	125	.96	271	1.11
1881—1885	85	.69	81	.58	166	.63
1886—1890	87	.66	72	.48	159	.57
1891—1895	141	1.01	122	.75	263	.88
1896—1900	239	1.59	212	1.24	451	1.40
1901—1905	120	.74	96	.53	216	.63
1906—1910	87	.51	71	.37	158	.43
1911—1915	87	.48	72	.36	159	.42
1916—1920	29	.15	14	.06	43	.11
1921—1925	27	.14	15	.06	42	.10
1926—1930	12	.06	11	.05	23	.05
1926	5	.12	1	.02	6	.07
1927	3	.07	3	.07	6	.07
1928	1	.02	3	.06	4	.04
1929	1	.02	1	.02	2	.02
1930	2	.04	3	.06	5	.05
1931	3	.07	2	.04	5	.05

The meaning of this Table is that the scourge of Endemic Diarrhœa has been eliminated.

Without entering into details it will be obvious that the maximum fatality from Summer Diarrhœa occurred in the closing quinquennium of the 19th Century, and that a high, though diminishing fatality experience continued until 1915.

Since 1915, with the single exception of the year 1921, which was the last hot, dry Summer in this locality, Diarrhœa has ceased to be a factor of any importance in the production of the general death-rate.

One of the outstanding features of Zymotic Diarrhœa in its epidemic form is the consistency with which it occurs in the hot, dry months of the year—August and September. Measured over a long series of years the incidence, locally, for these two months is practically identical.

There was also excessive incidence in July and October, but the tendency locally has been for the epidemics to prolong themselves into October, rather than to begin early in July.

The fact, above all others, that is significant in the state of affairs to-day, is that this definite seasonal characteristic of fatal Zymotic Diarrhœa has ceased to show itself for the last 10 years. It was there in 1921, but not since.

It is therefore justifiable to claim, especially in view of the fact that the deaths from Diarrhœa in Ipswich have been charted with care, month by month, since 1841, that the information contained in the records justifies the conclusion that the Epidemic Diarrhœa of the past no longer exists, because the conditions upon which it depended have passed away.

Bearing in mind the behaviour of an allied condition, Enteric Fever, I believe that the same conditions that produced the Endemic Enteric Fever of the past century and the beginning of this, also played a predominant part in the production of the epidemics of Diarrhœa which devastated the town until the beginning of this Century. There is no doubt in my mind whatever that the beginning of the end of Zymotic Diarrhœa in Ipswich was the attack on the 8,000 privy middens, which began in 1895 and ended in 1907.

The other factors concerned in the matter have been referred to in previous Reports, so that on this occasion consideration is given to two further factors only, viz., the effect of the type of Summer and the influence of change in the type of the disease.

So far as seasonal influence is concerned it is sufficient to state that the experience of the last 16 years, which included the very hot Summer of 1921, establishes, in my opinion, the position that seasonal influence is of but little importance in the absence of the conditions of insanitation necessary to the establishment of the epidemic state.

Lastly, the diminution in the number of deaths from Diarrhœa is due primarily to the diminution in the number of cases. There is no definite local evidence that the type of the disease has altered, although some practitioners believe that it is less severe than it was. It should not be forgotten in this relation that in all epidemics in the past there was always a large proportion of mild cases.

## INFLUENZA.

The following Table gives the deaths and average death-rates from Influenza since 1841.

Period.	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
1841—1850	10	.07	13	.08	23	.07
1851—1860	3	.01	3	.01	6	.01
1861—1870	4	.02	1	.00	5	.01
1871—1880	—	—	2	.00	2	.00
1881—1890	1	.00	4	.01	5	.01
1891—1900	121	.41	143	.43	264	.42
1901—1910	80	.23	83	.22	163	.22
1911—1920	171	.47	206	.50	377	.49
1921—1930	101	.25	132	.30	233	.27
1891—1895	71	.51	86	.53	157	.52
1896—1900	50	.34	57	.33	107	.33
1901—1905	32	.19	37	.20	69	.20
1906—1910	48	.28	46	.24	94	.26
1911—1915	39	.22	38	.19	77	.23
1916—1920	132	.61	168	.82	300	.77
1921—1925	40	.21	68	.31	108	.26
1926—1930	61	.30	64	.28	125	.29
1926	10	.25	9	.20	19	.22
1927	28	.70	30	.67	58	.68
1928	5	.12	3	.06	8	.09
1929	14	.34	20	.44	34	.39
1930	4	.09	2	.04	6	.06
1931	6	.14	5	.10	11	.12

1931 was not a fatal Influenza year.

This Table has been examined from various angles in previous Reports. The only comment offered on this occasion is that there are warnings writ large across it which should be borne in mind.

1. For practical purposes Influenza died out between 1850 and 1890. Why has not been answered. It returned in full force, suddenly, in 1890. Why has not been answered.

2. It has, since its return, exhibited constant variations in type. I need only mention the Influenza Plague of 1918. This simply bore no type relation to any of the other epidemics of Influenza that have occurred since 1890.

From these considerations emerge the warnings that the absence of an epidemic disease for as long a period as 40 years is valueless as evidence that it will not return, and that the type of the disease is not constant but is subject to unpredictable variations without known causation.

We have seen the same thing in the case of Scarlet Fever, Diphtheria, Smallpox, etc.

## DEATHS FROM TUBERCULOSIS.

88 deaths were referred to Tuberculosis in 1931 as compared with 67, 80, 89, 90 and 69 in the five previous years, and an average of 88.4 for the five years 1921-1925.

The number for 1931 was therefore above the average of the previous five years.

72 of the deaths (36 males and 36 females) were referred to the Pulmonary variety of the disease and 16 (6 males and 10 females) to the Non-Pulmonary varieties.

I give the usual Table showing the deaths and death-rates from Pulmonary and Non-Pulmonary Tuberculosis since 1841.

## DEATHS AND DEATH-RATES OF PERSONS FROM TUBERCULOSIS.

Periods.	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		All forms of Tuberculosis.	
	Number	Death-Rates	Number	Death-Rates	Number	Death-Rates
1841—1850	1035	3.57	104	.35	1139	3.92
1851—1860	1030	2.91	170	.47	1200	3.39
1861—1870	1143	2.83	181	.44	1324	3.28
1871—1880	1205	2.57	221	.47	1426	3.05
1881—1890	1122	2.07	326	.60	1448	2.67
1891—1900	1086	1.74	263	.42	1349	2.17
1901—1910	1033	1.46	254	.36	1287	1.82
1911—1920	921	1.20	239	.31	1160	1.50
1921—1930	701	.84	136	.16	837	1.00
1841—1845	535	3.95	17	.12	552	4.07
1846—1850	500	3.24	87	.56	587	3.80
1851—1855	546	3.20	89	.52	635	3.72
1856—1860	484	2.64	81	.44	565	3.08
1861—1865	549	2.81	78	.40	627	3.21
1866—1870	594	2.86	103	.49	697	3.35
1871—1875	606	2.71	110	.49	716	3.20
1876—1880	599	2.46	111	.45	710	2.91
1881—1885	590	2.25	165	.63	755	2.88
1886—1890	532	1.90	161	.57	693	2.47
1891—1895	569	1.90	115	.38	684	2.28
1896—1900	517	1.60	148	.46	665	2.06
1901—1905	532	1.56	111	.32	643	1.88
1906—1910	501	1.39	143	.39	644	1.78
1911—1915	460	1.21	111	.29	571	1.50
1916—1920	461	1.19	128	.33	589	1.52
1921—1925	378	.92	64	.15	442	1.07
1926—1930	323	.75	72	.17	395	.92
1926	58	.66	11	.11	69	.82
1927	75	.88	15	.17	90	1.06
1928	66	.77	23	.31	89	1.04
1929	66	.76	14	.15	80	.92
1930	58	.66	9	.04	67	.77
1931	72	.82	16	.18	88	1.00

This Table has been criticised in previous Annual Reports at considerable length.

On this occasion I simply draw attention to the broad general fact that since the beginning of this century, the death-rate from Tuberculosis, Pulmonary and Non-Pulmonary, has declined by almost exactly one-half.

There are many reasons for this state of affairs, which have been stated from time to time in these Reports. Suffice it to say at this time



that it is reasonable to conclude that the intensive local campaign of the last 20 years or so has been one of the contributory causes.

## CANCER.

133 deaths (47 males and 86 females) were ascribed to Cancer in 1931, as compared with 146, 136, 129, 116 and 105 in the five preceding years.

There was, therefore, a slight decline in 1931 from the previous year, which, however, was the highest recorded.

The death-rate in 1931 was the highest since 1841 with the exceptions of 1925, 1930 and 1929 in descending order.

The male death-rate was below the average of the last 10 years, but the female rate was the highest on record.

The following Table indicates the position :—

Period.	Numbers and Crude Death-rates.					
	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
1841—1850	12	.08	50	.32	62	.21
1851—1860	21	.12	80	.42	101	.28
1861—1870	47	.24	143	.66	190	.47
1871—1880	96	.43	193	.77	289	.61
1881—1890	115	.45	243	.84	358	.66
1891—1900	182	.62	299	.90	481	.77
1901—1910	290	.87	413	1.11	703	.99
1911—1920	399	1.10	562	1.39	961	1.25
1921—1930	523	1.33	694	1.57	1217	1.46
1841—1845	4	.06	24	.33	28	.20
1846—1850	8	.11	26	.31	34	.22
1851—1855	12	.15	43	.47	55	.32
1856—1860	9	.10	37	.38	46	.25
1861—1865	12	.13	77	.74	89	.45
1866—1870	35	.36	66	.59	101	.48
1871—1875	48	.46	103	.86	151	.67
1876—1880	48	.42	90	.69	138	.56
1881—1885	50	.41	117	.84	167	.63
1886—1890	65	.50	126	.84	191	.68
1891—1895	74	.53	145	.90	219	.73
1896—1900	108	.72	154	.90	262	.81
1901—1905	117	.73	164	.90	281	.82
1906—1910	173	1.01	249	1.31	422	1.17
1911—1915	196	1.09	274	1.38	470	1.24
1916—1920	203	1.11	288	1.40	491	1.26
1921—1925	256	1.33	329	1.53	585	1.44
1926—1930	267	1.32	365	1.62	632	1.48
1926	44	1.10	61	1.38	105	1.24
1927	50	1.23	66	1.45	116	1.34
1928	49	1.21	80	1.75	129	1.50
1929	57	1.41	79	1.73	136	1.58
1930	67	1.63	79	1.72	146	1.68
1931	47	1.13	86	1.85	133	1.51

It has been shown that the death-rate from Tuberculosis has declined some 50% since the beginning of this century. In contrast Cancer is within measurable distance of having doubled itself within the same period.

Notable features in the Table to which attention may be drawn once more are :—

(1) Taking the long view, the Cancer death-rate has continued to increase, irregularly throughout the whole period, but uninterruptedly.

(2) The rate of male increase has been much greater than that of the female.

(3) The rate of increase does not appear to have been affected appreciably by new methods of treatment.

(4) The statistical increase is proven, but the whole nature of the series indicates its fundamental unreliability as any contribution to the solution of the vexed problem of the increase of cancer.

There was no unusual site distribution of Cancer in 1931, which, for males, affects the Stomach, Rectum, Intestines, Generative Organs and Liver in the order given, and in the case of females the Generative Organs, Breast, Intestines, Stomach, Liver and Rectum.

With the exception of its preference for the Generative System of females, Cancer is largely a disease of the Digestive System, which may be a pointer as to causation.

There was no unusual feature in the age distribution of the Cancer deaths in 1931.

## DEATHS FROM DISEASES OF THE RESPIRATORY SYSTEM IN 1931.

151 deaths were referred to this group in 1931 (70 males and 81 females) as compared with 85, 156, 156, 203 and 152 in the preceding 5 years and an average of 148 for the period 1921-1925.

Thus the experience of 1931 corresponded much more closely with the existing average than that of 1930.

The principal causes of death were Bronchitis 88 (34 males, 54 females) and Pneumonia 48 (26 males, 22 females). Most of the Pneumonias belonged to the Broncho-Pneumonic type.

Periods.	Respiratory Death-rates per 1,000 living.		
	Males.	Females.	Persons.
1841—1850	3.68	3.06	3.35
1851—1860	3.84	2.96	3.37
1861—1870	3.67	3.05	3.37
1871—1880	3.81	3.03	3.39
1881—1890	3.65	2.78	3.19
1891—1900	3.67	2.77	3.18
1901—1910	2.38	2.13	2.24
1911—1920	2.35	2.03	2.18
1921—1930	1.83	1.77	1.80
1921—1925	1.82	1.85	1.83
1926—1930	1.83	1.65	1.76
1931	1.69	1.74	1.72

Thus the present day average mortality from Respiratory Diseases shows a decline during the present century of about 50% from that experienced during the last half of the 19th century. Much of this is due to the improved sanitary conditions of the Borough, since there is a definite and close relation between insanitary conditions and the fatality of diseases of the Respiratory System.

Another influence is the purely statistical one of improvement in the accuracy of certification of causes of death.

Bronchitis and Pneumonia are diseases which bear a definite relation to climatic conditions. They are always most fatal in the winter months, a fact which is well illustrated in the following Table, which shows the monthly distribution of the deaths and death-rates of persons in 1931.

Month.	No. of Deaths.	Death rates per 1,000 living.
January	14	1.87
February	23	3.40
March	44	5.89
April	18	2.48
May	7	.93
June	3	.41
July	4	.53
August	5	.67
September	6	.82
October	5	.67
November	7	.96
December	14	1.87
Year ...	150	1.71

The very heavy Respiratory Mortality for the month of March is worthy of note.

Diseases of this System are fatal chiefly amongst the old and the very young.



To sum up, the main conditions determining Respiratory Mortality are :—

1. The season of the year.
2. The age of the person, and
3. The sanitary conditions under which the people live.

### DEATHS FROM DISEASES OF THE HEART.

199 deaths (89 males, 110 females) were referred to this group in 1931 as compared with 139, 157, 144, 129 and 102 in the five preceding years.

The death-rate from the group was equal to 2.26 per 1,000 persons living, the highest rate yet ascribed to the group.

It will be understood that this statement does not mean any actual increase in the prevalence of Heart Diseases. It is merely evidence of the tendency to ascribe deaths to Cardiac Degenerations rather than Senile Degeneration. The increase in the group is confined entirely to the higher ages, there being no evidence of variation under 45 years of age.

Further evidence on this point is afforded by the fact that there has been a considerable decline in the number of deaths ascribed to Senility in recent years.

Heart Diseases were credited with 19.33% of all the deaths registered in Ipswich in 1931.

Examination of the age and sex distribution of the deaths ascribed to Aortic Disease as compared with Mitral Disease points to a definite association between Aortic Disease and Tertiary Syphilis on the one hand and Mitral Disease and Rheumatism on the other. The relation of Rheumatism to Heart Disease is notorious, but the influence of Syphilis is not so well recognised.

### DEATHS FROM CEREBRAL HÆMORRHAGE, EMBOLISM AND THROMBOSIS.

Periods	Deaths from		Group.	
	Cerebral Hæmorrhage.	Cerebral Embolism and Thrombosis.	No. of Deaths.	Death-Rates.
1921—1930	548	114	662	.79
1921—1925	260	44	304	.74
1926—1930	288	70	358	.83
1931	68	11	79	.90

These deaths belong to the Degeneration stage of life.

79 deaths were referred to the group in 1931, a figure which is above the average of recent years.

## ARTERIO SCLEROSIS.

This condition, which is extremely common, is the real cause of Cerebral Hæmorrhage. In consequence, as certification of the causes of death becomes more accurate, it will tend to increase at the cost of the Cerebral Hæmorrhage group.

I give a Table in which the facts are set forth for the 11 years 1921-1931.

Periods.	Arterio Sclerosis.				Total.	
	With a Cerebral Lesion		Without a Cerebral Lesion			
	Numbers.	Rates.	Numbers.	Rates.	Numbers.	Rates.
1921—1930	96	.11	76	.09	172	.20
1921—1925	22	.05	29	.07	51	.12
1926—1930	74	.17	47	.11	121	.28
1931	15	.17	5	.05	20	.22

Obviously the number of deaths ascribed to this group is on the increase, but it will be realised that the Table does not establish that the disease itself has increased at all.

## VIOLENCE.

The death-rates from various forms of Violence (including Suicides) are shown in the following Table of Decennial Rates since 1841 :—

Periods.	Death-rates per 1,000 living.		
	Males.	Females.	Persons.
1841—1850	.89	.25	.55
1851—1860	.88	.38	.61
1861—1870	.89	.26	.56
1871—1880	.77	.20	.47
1881—1890	.75	.23	.47
1891—1900	.78	.29	.52
1901—1910	.73	.29	.50
1911—1920	.74	.36	.54
1921—1930	.62	.29	.45
1921—1925	.59	.27	.42
1926—1930	.66	.32	.48
1931	.77	.23	.49

43 deaths (32 males and 11 females) were ascribed to Violence in 1931 as compared with 41 in the previous year and an average of 41 for the period 1926-1930.

11 deaths (7 males and 4 females) were due to Suicide.

18 deaths (15 males and 3 females) were due to Motor Vehicles of various sorts. This is the highest figure yet recorded for this class of accident.

The general facts connected with Violence show that in recent years there has been a definite increase in the death-rate from Suicide, more especially in the case of females, a diminution in the death-rates from Burns, Suffocation and Drowning, and an enormous increase in the death-rate ascribed to Vehicular violence, entirely due to Motor Vehicles.

Nearly 42% of the total fatalities from Violence in 1931 were due to Motor Vehicles.

Private cars were responsible for 9 deaths, Motor Lorries 2, Motor-cycles 5 and Trolley 'Buses 2. Since 1926 8 persons have been killed in Ipswich by Trolley 'Buses.

In the 11 years 1921-1931, 112 Ipswichians have been killed as a result of Vehicular Violence, of whom 61 were killed by Motor-cars, 23 by Motor-cycles, 11 Railways, 8 Bicycles, 8 Trolley 'Buses, and 1 Electric Tram.

### PUERPERAL MORTALITY.

3 women died from complications after Childbirth as compared with 6 in the previous year.

The Puerperal Mortality rate was, therefore, equal to 2.18 per 1,000 births, as compared with an average of 4.06 for the 90 years 1841-1930.

2 of the deaths were due to Puerperal Sepsis and one to shock.

I give the usual Table of Death-rates per 1,000 Births:—

Periods.	Puerperal Fever.	Puerperal Hæmorrhage.	Puerperal Convulsions	All other Conditions.	Total all causes.	
					No.	Rates.
1841—1850	1.81	.42	.53	1.71	42	4.47
1851—1860	1.00	.17	1.00	1.60	45	3.77
1861—1870	.90	.45	.52	1.51	45	3.38
1871—1880	1.53	.57	.25	1.72	64	4.07
1881—1890	2.16	.52	.41	1.41	77	4.50
1891—1900	1.57	.50	.22	1.92	75	4.21
1901—1910	.63	1.07	.63	1.44	71	3.77
1911—1920	1.39	.60	.97	1.33	71	4.29
1921—1930	2.20	.53	.66	.66	61	4.06
1921	1.74	—	—	1.74	6	3.46
1922	.63	—	1.89	.63	5	3.15
1923	1.29	—	—	.64	3	1.93
1924	1.39	—	.69	.69	4	2.79
1925	2.81	.70	—	—	5	3.52
1926	1.94	.65	1.94	1.30	9	5.84
1927	2.11	1.41	.71	.71	7	4.94
1928	4.91	2.81	.70	—	12	8.42
1929	2.08	—	.69	—	4	2.77
1930	3.40	—	—	.68	6	4.08
1931	1.45	—	—	.73	3	2.18

As usual the greater number of deaths was referred to Puerperal Sepsis.

The following Table shows the decennial numbers of cases of Puerperal Sepsis notified in Ipswich since 1891, together with the number of deaths and the case mortality per cent. :—

Periods.	No. of Cases Notified.	No. of Deaths.	Case Mortality per cent.
1891—1900	39	28	71.8
1901—1910	26	12	46.1
1911—1920	54	23	42.6
1921—1930	135	33	24.4
1931	18	2	11.1

This Table has been examined fully in previous Reports. It will be sufficient therefore to point out once more that though it is a true record of notifications and deaths, it is as false as it is possible for such a Table to be as an indication either of the real prevalence of Puerperal Sepsis or its proportional fatality.

Thus, the case fatality appears to have dropped enormously since the beginning of this century, but this information is not really contained in the Table. What the Table does contain is the information that formerly only the severest cases were notified, whilst the milder varieties were either not recognised at all or if recognised were not notified.

Within the last few years there has been an increasing tendency to notify the milder cases and to treat them as cases of Sepsis. In association with this, much greater advantage has been taken of the beds available for the treatment of such cases in Hospital.

These factors have combined to reduce the case fatality materially.

## INFANT MORTALITY.

The Infant Deaths registered and the Infant Mortality rates recorded in Ipswich since 1841 are shown in the following Table, together with the Infant Mortality rates for England and Wales for the same period :—

## DECENNIAL AND QUINQUENNIAL INFANT DEATHS.

Period.	No. of Deaths.			Infant Death Rates.						Female
	Males.	Fmles.	Infants	Males.		Females.		Infants.		Infant Deaths
				Ips.	E.&W.	Ips.	E.&W.	Ips.	E.&W.	per 1,000 Males.
										Ipswich.
1841—1850	915	743	1,658	191	167	161	137	176	153	843
1851—1860	1,122	931	2,053	184	168	159	139	172	154	864
1861—1870	1,141	982	2,123	167	168	151	139	159	154	904
1871—1880	1,369	1,024	2,393	171	163	134	134	152	149	783
1881—1890	1,327	1,004	2,331	153	155	118	128	136	142	771
1891—1900	1,582	1,181	2,763	174	168	135	138	155	153	776
1901—1910	1,322	1,044	2,366	138	140	113	114	126	128	819
1911—1920	889	615	1,504	105	112	76	89	91	100	724
1921—1930	496	343	839	65	81	46	63	56	72	707
1841—1845	363	296	659	178	162	143	133	161	148	803
1846—1850	552	447	999	201	172	175	142	188	157	870
1851—1855	550	453	1,003	188	172	158	141	173	156	840
1856—1860	572	478	1,050	180	166	160	137	171	152	888
1861—1865	567	492	1,059	171	166	156	136	164	151	912
1866—1870	574	490	1,064	164	170	146	142	155	157	890
1871—1875	647	487	1,134	169	167	133	138	152	153	787
1876—1880	722	537	1,259	172	159	135	130	154	145	785
1881—1885	647	496	1,143	152	152	117	125	134	139	770
1886—1890	680	508	1,188	155	159	119	131	138	145	768
1891—1895	763	559	1,322	171	165	128	135	150	151	748
1896—1900	819	622	1,441	177	170	141	141	160	156	800
1901—1905	763	605	1,368	155	151	128	124	142	138	826
1906—1910	559	439	998	119	129	97	105	109	117	815
1911—1915	525	365	890	115	121	85	97	101	110	739
1916—1920	364	250	614	92	101	65	79	78	90	706
1921—1925	274	197	471	71	86	50	66	61	76	704
1926—1930	222	146	368	58	77	41	59	50	68	707
1911	99	82	181	107	142	96	117	102	130	—
1912	120	75	195	135	106	87	84	112	95	—
1913	109	65	174	119	120	74	96	96	108	—
1914	101	87	188	108	116	100	93	104	105	—
1915	96	56	152	117	123	70	96	94	110	—
1916	78	57	135	90	102	71	80	81	91	—
1917	71	48	119	107	108	73	85	90	96	—
1918	66	49	115	94	108	71	86	83	97	—
1919	59	41	100	89	100	58	78	70	89	—
1920	90	55	145	89	90	55	69	72	80	—
1921	70	58	128	83	93	65	72	74	83	—
1922	38	47	85	49	87	58	66	54	77	—
1923	52	27	79	66	78	35	60	51	69	—
1924	49	26	75	67	85	37	65	52	75	—
1925	65	39	104	93	84	54	66	73	75	—
1926	46	24	70	59	79	31	61	45	70	—
1927	51	41	92	69	79	59	60	65	70	—
1928	46	23	69	59	74	35	56	48	65	—
1929	44	32	76	60	83	44	65	52	74	—
1930	35	26	61	45	68	37	51	41	60	—
1931	46	36	82	65	—	53	—	59	—	815

Thus there was an increase in the Infant Death-rate in 1931 as compared with the period 1926-1930. The rate increased for both sexes, but more so for females; in fact, the female male ratio was the highest since 1906-1910.

The increase in the Infant Mortality rate in Ipswich in 1931 was due to the excessive mortality of the March Quarter, but this was offset to a large extent by the extraordinarily low rate recorded for the September Quarter.

The rates recorded were 103 in the March Quarter, 51 in the June Quarter, 8 in the September Quarter, and 71 in the December Quarter.

The figure for the September Quarter has never been approached previously, and, in view of the past experience of the Borough in the summer months, points in the most emphatic manner to the great change that has taken place in the sanitary environment and management of Infancy.

Annexed is the usual Table showing the age distribution and causes of the Infant deaths in 1931.

From this Table it appears that the principal causes of death in 1931 showed no departure from the grouping usual at the present day. As always, Atrophy, Prematurity and Congenital defects cause by far the greatest number of deaths. This group is followed by Bronchitis and Pneumonia, which caused more deaths than for several years past. These conditions were the cause of the high Infant Mortality of the March Quarter. The 7 principal Zymotic diseases occupy the third place with a mortality experience closely corresponding with the average of the last 5 years.

Once more the low mortality ascribed to the various forms of Tuberculosis is worthy of note.

The death-rates from various conditions under 1 year are shown in the following Table, which brings out very clearly the salient features of the case.



8







Causes of Death.	1891— 1895.	1896— 1900.	1901— 1905.	1906— 1910.	1911— 1915.	1916— 1920.	1921— 1925.	1926— 1930.	1930.	1931.
7 Principal Zymotics ...	33.5	52.3	26.2	20.9	19.7	8.6	8.0	5.7	5.45	5.83
Other Infectious Diseases...	4.4	2.4	1.7	4.2	4.2	3.6	2.4	1.5	—	2.18
Tuberculosis ...	3.8	3.8	3.0	3.3	2.3	2.9	.8	.8	.68	.72
Other General Diseases ...	.8	.2	.5	.6	.6	.5	.5	.5	2.04	.72
Diseases of Nervous System	12.3	10.6	10.2	7.8	5.8	4.9	3.5	1.5	2.04	2.18
"  "  Circulatory  "	.1	—	.1	—	.1	.1	—	.1	—	—
"  "  Respiratory  "	26.1	24.1	22.2	16.0	18.4	15.3	11.5	8.7	4.76	12.40
"  "  Digestive  "	1.1	1.3	.2	1.7	2.2	2.3	1.2	.9	.68	—
"  "  Genito Urinary System	.1	.2	.3	.3	.1	.2	—	.1	—	—
"  "  Skin & Cellular Tissue	.8	1.4	1.3	.4	.7	.2	.4	1	—	—
Congenital Malformations	2.8	1.7	2.6	3.1	4.7	4.0	4.6	5.4	4.76	6.56
Prematurity, Atrophy, etc.	61.5	56.8	68.6	46.8	40.3	33.0	26.1	23.4	21.11	27.71
Violence ...	1.5	2.9	3.0	2.1	1.9	2.7	1.9	.8	—	1.45
All Others ...	1.5	2.1	.7	1.2	.6	.3	—	.4	—	—
TOTAL ...	150	160	142	109	101	78	61	50	41	59

It will be observed that the Infant death-rate of 1931 is very near the average of the 5 years 1921-1925, and if the death-rates be compared a close correspondence will be observed in the various group rates. This is an excellent illustration of the fact that whether the Infant death-rates are high or low, they are made up of the same groups of causes which occupy much the same relative positions towards one another.

I call attention once more to the dramatic decline in the mortality experience of Infants from the group of the seven principal Zymotic diseases. To a large extent this is due to the absence of Diarrhoea, but this is not the only cause. There has been a definite decline in Infant Mortality from Measles and Whooping Cough, which is due in no small degree to more intelligent management of these Infant diseases, as a result of years of persistent advice. It takes years of propaganda to produce these effects.

I call attention to the Table showing the age distribution of the Infant death-rates under 1 year:—

## AGE DISTRIBUTION OF THE INFANT DEATH-RATES UNDER 1 YEAR.

Quinquennia.	—1 Week.			—1 Month.			—3 Months.			3—6 Months.			6—9 Months.			9—12 Months.			—1 Year.																				
	M.		I.	M.	F.	I.	M.	F.	I.	M.	F.	I.	M.	F.	I.	M.	F.	I.	M.	F.	I.																		
	M.	F.	I.	M.	F.	I.	M.	F.	I.	M.	F.	I.	M.	F.	I.	M.	F.	I.	M.	F.	I.																		
1891—1895	29	47	21	06	25	17	50	00	35	72	42	92	88	43	61	07	74	92	35	32	27	19	30	51	26	32	20	28	23	33	21	60	20	28	20	95	171	128	150
1896—1900	25	80	20	04	23	00	44	88	35	08	40	11	80	66	66	74	73	88	40	33	30	06	35	33	30	57	28	47	29	54	26	01	16	40	21	44	177	141	160
1901—1905	30	20	27	54	28	90	54	49	45	56	50	11	85	31	70	56	78	09	30	20	22	03	26	20	23	06	17	37	20	27	17	14	18	22	17	67	155	128	142
1906—1910	30	72	17	58	24	29	47	57	32	27	40	08	73	39	52	08	62	96	17	28	17	36	17	32	16	64	14	46	15	57	11	94	13	80	12	85	119	97	109
1911—1915	30	12	22	00	26	16	45	52	33	48	39	74	69	40	48	00	58	95	16	29	13	81	15	08	18	07	12	17	15	19	13	39	11	47	12	45	117	85	101
1916—1920	21	49	17	48	19	52	36	41	28	97	32	74	54	36	43	33	48	96	14	66	8	09	11	43	11	88	8	09	10	01	11	12	5	74	8	47	92	65	78
1921—1925	25	33	17	25	21	26	35	24	25	75	30	47	52	22	34	00	43	05	7	05	5	92	6	48	6	01	5	40	5	70	6	26	5	40	5	83	71	50	61
1926—1930	23	58	13	66	18	80	34	18	21	06	26	56	41	08	27	61	34	58	7	42	4	54	6	63	5	30	4	54	4	94	5	03	4	83	4	94	58	41	50
1926	24	45	6	55	15	58	33	46	18	34	26	00	43	75	24	90	34	41	5	14	2	62	3	89	6	43	2	62	4	54	3	86	1	31	2	60	59	31	45
1927	28	80	18	92	24	01	38	41	27	65	33	19	45	26	33	48	39	54	10	97	8	73	9	88	4	11	10	19	7	06	9	60	7	27	8	47	69	59	65
1928	14	32	12	19	13	34	22	13	21	34	21	77	36	45	24	39	30	90	7	81	3	04	5	61	10	41	3	04	7	02	5	21	4	57	4	91	59	35	48
1929	24	82	19	63	22	25	35	86	23	84	29	96	42	76	33	66	38	24	9	65	4	20	6	95	4	13	4	20	4	17	4	13	2	80	3	47	60	44	52
1930	25	84	11	52	19	07	32	30	14	41	23	84	37	46	21	61	29	97	3	87	4	32	4	08	1	29	2	88	2	04	2	58	8	64	5	43	45	37	41
1931	25	64	14	94	20	42	38	46	25	41	32	09	51	28	31	38	41	57	7	12	8	96	8	02	2	84	10	46	6	56	4	27	3	00	3	64	65	53	59

From this it appears that the higher mortality for the year 1931 was associated with increases in the mortality rates at all ages under 9 months, but especially the period between 1 week and 3 months. This again was particularly the case with the male mortality, which was higher than had been experienced for several years at these ages. This again is related to the rise in the Atrophy, Prematurity, Malformation group.

It has been pointed out in previous Reports that the excessive mortality of the first few weeks of life is closely related to the question of Stillbirths.

The effect of Stillbirths is shown in the following Table :—

Year	Death-rates of Infants								
	Males			Females			Infants		
	Ante-Natal	Post Natal	Total	Ante-Natal	Post Natal	Total	Ante-Natal	Post Natal	Total
1928	48	59	106	34	35	68	41	48	89
1929	53	60	112	39	44	83	46	52	98
1930	52	45	96	36	37	73	45	41	85
1931	37	65	101	33	53	86	35	59	94

Thus Stillbirth practically doubles the Infant Mortality rate.

### STILLBIRTHS.

50 Stillbirths were registered in Ipswich in 1931 as compared with 68 in the previous year.

The number of Stillbirths registered locally since the Regulations came into force is shown in the following Table, together with the percentage proportion of Stillbirths to Potential Lives :—

Year	Males		Females		Infants	
	No.		No.	%	No.	%
1927	18	4.5	9	2.6	27	3.6
1928	38	4.8	23	3.4	61	4.1
1929	40	5.3	29	3.9	69	4.6
1930	42	5.2	26	3.6	68	4.5
1931	27	3.7	23	3.3	50	3.5
TOTALS	165	4.77	110	3.51	275	4.17

Thus the tendency to stillbirth is definitely greater amongst Males, in much the same way as the Post-Natal male Infant mortality is higher than the female.

It may be that the excess male stillbirth and Post-Natal mortality are due to one and the same cause. Difficulty at birth may cause the

infant to be stillborn, or may produce effects upon the infant born alive of such a kind as to produce part of the excessive mortality of the first few weeks of life.

On the other hand, the less difficult birth of females may be a reason for the lower stillbirth and post-Natal female mortality rates of the first weeks after birth.

The figures in the Table show that the average Pre-Natal Mortality experience locally per 1,000 potential lives works out 47.7 for males, 35.1 for females, and 41.7 for infants.

Multiple births show a far greater tendency to stillbirth than single.

## INFECTIOUS DISEASES.

The following Table gives the numbers and rates of notifications received since 1921 :—

Diseases Notified	1921—1925.		1926—1930.		1930.		1931.	
	Nos.	Rate.	Nos.	Rate.	Nos.	Rate.	Nos.	Rate.
Chicken Pox ...	2182	5.37	3596	8.43	573	6.59	570	6.49
Diphtheria ...	736	1.81	472	1.10	133	1.53	348	3.96
Scarlet Fever ...	581	1.43	983	2.29	287	3.30	495	5.63
Pneumonia ...	543	1.33	484	1.13	42	.48	47	.53
Erysipelas ...	120	.29	140	.32	38	.43	29	.33
Puerperal Fever ...	60	.14	73	.17	18	.20	18	.20
Puerperal Pyrexia	—	—	33	.07	8	.09	10	.11
Ophthalmia								
Neonatorum ...	53	.13	52	.12	19	.21	9	.10
Enteric Fever ...	34	.08	37	.08	20	.23	3	.03
Malaria ...	19	.04	3	.006	—	—	1	.01
Dysentery ...	2	.004	—	—	—	—	—	—
Encephalitis								
Icthergica ...	8	.02	13	.03	3	.03	3	.03
Anterior								
Poliomyelitis	8	.02	8	.018	—	—	—	—
Cerebro-Spinal								
Fever ...	7	.01	10	.02	3	.03	2	.02
Acute Polio								
Encephalitis ...	1	.002	1	.002	—	—	—	—
Small Pox ...	—	—	1	.002	—	—	—	—
TOTAL ...	4354	10.74	5906	13.85	1144	13.16	1535	17.48

Thus the proportion ascribed to Chicken Pox was below the average, though the number of cases was almost exactly the same as in the previous year.

There was excessive prevalence of Scarlet Fever and Diphtheria.

The Notifications of Pneumonia declined from the average of the previous 5 years.

The Notifications of Puerperal Fever and Puerperal Pyrexia were about the same as in 1930.

## SMALLPOX.

There were no cases notified in 1931.

Since compulsory notification came into force in 1891, 31 cases of Smallpox have been notified in Ipswich, viz., 23 between 1891-1895, 1 between 1896-1900, 6 between 1901-1905, and 1 in 1928. There was only one fatal case during the whole of this period, in the year 1893.

So far as Ipswich is concerned the Reports of the Medical Officer of Health show that between 1881 and 1885 there were 26 known cases of Smallpox in the Borough, with 2 deaths, an average case fatality of 7.7%. All these cases were isolated in the Fever Hospital, except 2.

Between 1886 and 1890 there were no deaths from Smallpox and no cases were known to have occurred.

Therefore, just as in the case of Scarlet Fever, the old type of the disease died out about 1885.

This coincidence is worthy of note.

## SCARLET FEVER.

495 cases of Scarlet Fever were notified in 1931, the equivalent of an attack rate of 5.64 per 1,000 living. This is the highest rate recorded since the beginning of notification, with the exceptions of 1893, 1894, 1914, and 1915.

Table showing the number of cases of Scarlet Fever notified, the attack rates, the number and proportions of the cases removed to Hospital and the case fatalities per cent. in terms of decennia and quinquennia since 1891 :—

Periods.	Notifications.		Removals.		Case Fatality per cent.
	Numbers.	Attack Rates per 1,000 living.	Numbers.	Proportion per cent.	
1891—1900	2,654	4.29	993	37	1.9
1901—1910	1,126	1.60	880	78	1.3
1911—1920	2,683	3.51	2,070	77	1.6
1921—1930	1,562	1.87	1,423	91	.5
1891—1895	1,792	6.01	620	35	2.1
1896—1900	862	2.69	373	43	1.7
1901—1905	692	2.02	517	74	.8
1906—1910	434	1.20	363	83	2.1
1911—1915	2,065	5.45	1,513	73	1.8
1916—1920	618	1.59	557	90	.9
1921—1925	581	1.43	533	91	1.0
1926—1930	981	2.29	890	90	.3
1931	495	5.64	461	93	.6

This Table shows that the average case fatality of the present type of Scarlet Fever over the whole period since 1891 was 1.4%. At the present time the average fatality is much below this and stands at the lowest point yet recorded.

The notification records show that there have been two great epidemics and many minor ones since 1891.

The first of the major epidemics occurred in 1893 and 1894. This produced about 1,371 cases with 27 deaths, a case fatality of 1.9%.

The second occurred in 1914-1915, and consisted of about 1,563 cases with 32 deaths, a case fatality of 2.0%. Thus the case fatality of these two epidemics was practically identical.

The most severe epidemic of the notification period was that of 1914, when the attack rate was equal to 13.32 per 1,000 living. This was followed by 1893 with an attack rate of 11.90 per 1,000 living, 1894, 11.34 per 1,000 living, and 1915, 7.10 per 1,000 living.

During the last three years Scarlet Fever has steadily increased in prevalence, but the fatality rate has remained extremely low.

## DIPHTHERIA.

Table showing the number of cases of Diphtheria notified, the attack rates, the numbers and proportions of the cases removed to Hospital, and the case fatality per cent. in terms of decennia and quinquennia since 1891.

Periods.	Notifications.		Removals.		Deaths. Case Fatality per cent.
	Numbers.	Attack Rates per 1,000 living.	Numbers.	Proportion per cent.	
1891—1900	536	.88	33	6	29.3
1901—1910	791	1.12	461	58	12.9
1911—1920	1,779	2.33	1,618	90	7.1
1921—1930	1,208	1.45	1,167	96	4.3
1891—1895	273	.91	12	4	37.7
1896—1900	263	.82	21	8	20.5
1901—1905	428	1.22	185	43	13.5
1906—1910	363	1.01	276	76	12.1
1911—1915	628	1.66	532	84	9.4
1916—1920	1,151	2.97	1,086	94	5.9
1921—1925	736	1.81	708	96	3.4
1926—1930	472	1.10	459	97	5.7
1931	348	3.97	336	96	6.9

348 cases of Diphtheria were notified in 1931, giving a notification rate of 3.97 per 1,000 living. This is the highest rate recorded since 1891, with the exceptions of 1920 (6.26), 1921 (5.54), and 1919 (4.23).



The broad general fact exhibited in this Table is that the prevalence of Diphtheria increased from the beginning of notification in 1891, with the usual fluctuations inherent in all limited populations, to a maximum in the period 1916-1920. Since that period the prevalence declined until in 1926-1930 it had fallen back to the average position of the decennium 1901-1910.

From 1891-1900 Hospital Isolation was not practised, and rather less than one-third of the notified cases proved fatal.

Since the beginning of this century Hospitalisation has come more and more into favour, and the case fatality has fallen with dramatic rapidity in association with the treatment of the disease with adequate dosage of Diphtheria Antitoxin and skilled nursing.

It has been stated already that Diphtheria furnishes another illustration of type variation, and in order to emphasise this point I give the following Table :—

Year.	No. of Notifications.	Notification Rates.
1916	71	.92
1917	108	1.40
1918	151	1.94
1919	328	4.23
1920	493	6.26
1921	441	5.54
1922	146	1.80
1923	114	1.40
1924	20	.24
1925	35	.42
1926	13	.15
1927	24	.28
1928	110	1.29
1929	192	2.23
1930	133	1.49
1931	348	3.97

Thus there are three phases indicated in this Table :

1. The prevalence of Diphtheria increased from 1916 to 1920, when it reached its maximum since notification began. The experience of the year 1921 was very similar to that of 1920. In 1922 and 1923 the incidence fell away to practically exactly the same positions as held sway in 1918 and 1917.

2. From 1924 to 1927 there was less Diphtheria in Ipswich than at any time since 1891. In fact there was a prolonged period in 1926 during which the disease apparently ceased to exist. In 1924 and 1925 the average case fatality fell to 1.8%.

3. In 1928 prevalence increased very considerably and the disease changed in type. This has been pointed out already. The case fatality

was 3.6% in 1928, 5.7% in 1929, 6.0% in 1930 and 6.9% in 1931. It has therefore steadily increased since the new type appeared.

The experience of Ipswich in the cases of Diphtheria and Scarlet Fever invites a little consideration of the effect of Notification, Isolation and Disinfection in controlling the spread of these Infections.

The practice of notification of Infections and the enforcement of isolation of the sick had their basis in the belief that those persons only who showed evidence of the disease constituted the epidemic.

It is common knowledge that the fact that Epidemics of Scarlet Fever and Diphtheria continue to recur in spite of practically complete notification and isolation, has in some quarters, raised doubts as to the value of these procedures.

These misgivings would not have arisen if the persons concerned had kept in touch with the progress of modern knowledge.

It has been proved conclusively that in epidemics of Scarlet Fever and Diphtheria, and other Infections belonging to the Naso-Pharyngeal group, the actual cases of disease constitute only a part of the epidemic, the other part consisting of persons who acquire the infections in various ways, incubate the germs in their naso-pharynxes for a period, and finally overcome the attack without at any time showing any evidence of infection whatever.

These individuals mix freely with the general community during their period of infection and are capable throughout of transmitting infection to other people who may in their turn behave in exactly the same way or suffer from an actual attack of the disease.

It will be gathered from this that the notification and isolation of sufferers from the actual disease can, under these circumstances, achieve only partial success in the control of epidemics. At the same time it will be recognised that the isolation of the sick is essential in the interests of the public, the other members of the family and their own.

At this point attention may be directed to a consideration of high practical importance, namely, the probability of acquiring the disease from (a) a person actually suffering from the disease, and (b) a person infected but capable of preventing the establishment of the diseased condition.

In the case of a person actually suffering from the disease, contacts are exposed to an infection which has already demonstrated its capacity to break down resistance and produce disease, and it is in accordance with the teaching of experience that such an infection is potent in the case of unprotected contacts.

On the other hand, it may be that the person who deals so successfully with an infection as to prevent the establishment of the disease is less likely to pass on to another person a sufficient dose of



sufficient virulence to break down resistance. The result of this is that this class may be assumed to be circulating amongst the community sub-infective doses of infection, the mass result of which is to contribute to the production of herd immunity. By herd immunity is meant the condition of resistance to disease enjoyed by large numbers of people who have never suffered from attacks of the particular disease, but who have, in fact, become immune to all ordinary doses of infection by the process of immunisation by subinfective dosage.

This class of immunity increases as age advances owing to repeated exposures to infection, which explains why adults are comparatively infrequently attacked either by Scarlet Fever or Diphtheria. It increases also with the density of the population simply from increased opportunities for repeated infections, each of which contributes a proportion to the total immunity or capacity of resistance.

From this it emerges that herd immunity should be regarded as the expression of the completeness and frequency with which a population has been exposed to the circulation of repeated subinfective dosage of infection together with all those protected by an actual attack of the disease.

It follows from this process of natural immunisation of the people in populous places that the true prevention of these diseases lies in the production in the community at the earliest possible age of the same condition of immunity that is now reached by large proportions of the populace as a result of the slow, uncertain and dangerous natural process.

In the case of Diphtheria, this method of population immunisation has been worked out and is available to all who wish to take advantage of the opportunity with complete safety to the individual. Children can now be so immunised against Diphtheria as to secure a very high degree of protection against attack and practically complete abolition of the risk of death in the small proportion who acquire the disease.

Diphtheria could be abolished as a serious menace to the community by intelligent co-operation between the community and those responsible for the communal health.

At the present moment the treatment of Diphtheria is a heavy charge upon the local rates, far exceeding the cost of immunisation.

A campaign of immunisation on a voluntary basis is definitely called for and can be carried out, but it will not be complete because of the opposition of the ill-informed, but this should not deter the intelligent from protecting themselves and their children.

It will be obvious from the foregoing that young children artificially immunised will in the course of their lives be exposed to the same chances of infection as other persons in the community, and thus the immunity conferred upon them by the artificial method will be continually supplemented by the stimulus of natural subinfective dosage of infection.

## ENTERIC FEVER.

3 cases were notified in 1931. All recovered.

Table showing the number of cases of Enteric Fever notified, the attack rates, the number and proportions of the cases removed to Hospital and the case fatality per cent. in terms of decennia and quinquennia since 1891.

Periods.	Notifications.		Removals.		Case Fatality per cent.
	Numbers.	Attack Rates per 1,000 living.	Numbers.	Proportion per cent.	
1891—1900	938	1.51	376	40	12.8
1901—1910	485	.69	388	80	16.1
1911—1920	77	.10	62	80	7.7
1921—1930	71	.08	58	81	7.0
1891—1895	383	1.28	130	34	14.3
1896—1900	555	1.73	246	44	11.7
1901—1905	380	1.11	297	78	17.1
1906—1910	105	.29	91	86	12.4
1911—1915	56	.14	46	82	5.3
1916—1920	21	.05	16	76	14.3
1921—1925	34	.08	28	82	8.8
1926—1930	37	.08	30	81	5.4
1931	3	.03	3	100	—

The Table shows the profound change that has taken place since the beginning of this Century, in actual fact since about 1907.

Three great epidemics have been recorded since the beginning of notification, viz., 284 cases in 1899, 173 in 1902, and 134 in 1893.

Since 1907 the maximum number of notifications in any year was 20 in 1930.

Reference has been made already to the disappearance of Endemic Enteric Fever, which has arisen from two main factors, viz., an adequate supply of pure water, and the provision of sound systems of House Drainage and Sewer Construction. This has rendered possible the complete conversion of the whole of the old town from the Privy Midden to the water carriage system of sewage disposal.

It is therefore a matter of regret and of misgiving that difficulties of Sewer Construction have rendered it necessary to permit of the construction of large numbers of houses in the outer areas of the town which are not connected with the Sewage System, but are drained into septic tanks.

I emphasise that whilst this system may be permitted as a temporary expedient, it is imperative that it should be discontinued at the earliest possible moment.

The prime reason for the present freedom from Enteric Fever is not related to type, although that also has changed, nor is it due to

notification, although this is of the utmost importance in relation to the present variety of the disease, nor is it due to the prompt isolation of the sick. All these have their values, but they are dwarfed into insignificance when compared with the influence of the conversion of the town from the abominations of the Privy Midden System to the Water Carriage System.

The present type of Enteric Fever in Ipswich is Paratyphoid B. I cannot say exactly when the old type died out, but it remains that it has.

Thus the outbreak of 1930 was Paratyphoid B, entirely, so was the local (Institution) outbreak of 1925. These two outbreaks were due to entirely different causes.

## TUBERCULOSIS.

### NOTIFICATIONS OF TUBERCULOSIS SINCE 1909.

Table A.

Number of cases notified.

Year	Pulmonary.			Non-Pulmonary.			All Forms.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.
1909	41	23	64	—	—	—	41	23	64
1910	29	15	44	—	—	—	29	15	44
Average	35	19	54	—	—	—	35	19	54
1911	75	57	132	—	—	—	75	57	132
1912	178	152	330	—	—	—	178	152	330
1913	112	88	200	58	52	110	170	140	310
1914	98	58	156	18	23	41	116	81	197
1915	60	56	116	18	20	38	78	76	154
1916	91	77	168	19	17	36	110	94	204
1917	77	78	155	18	12	30	95	90	185
1918	81	97	178	16	18	34	97	115	212
1919	82	82	164	26	39	65	108	121	229
1920	70	67	137	39	36	75	109	103	212
Average	92.4	81.2	173.6	21.2	21.7	42.9	113.6	102.9	216.5
1921	173	131	304	41	35	76	214	166	380
1922	90	65	155	23	21	44	113	86	199
1923	72	61	133	38	36	74	110	97	207
1924	72	69	141	24	28	52	96	97	193
1925	72	74	146	34	32	66	106	106	212
1926	55	68	123	41	35	76	96	103	199
1927	68	59	127	26	27	53	94	86	180
1928	72	69	141	20	24	44	92	93	185
1929	63	69	132	25	32	57	88	101	189
1930	62	54	116	19	26	45	81	80	161
Average	79.9	71.9	151.8	29.1	29.6	58.7	109.0	101.5	210.5
1931	69	63	132	24	23	47	93	86	179

Thus in 1931 the number of notifications of Pulmonary Tuberculosis was slightly above the average of the previous 5 years, though considerably below the averages of the two previous Decennia. As regards the Non-Pulmonary varieties the decline of the last year or two was maintained.

For all varieties the number of notifications in 1931 was the lowest since notification began, with the exceptions of 1915 and 1930.

## NOTIFICATION RATES.

Table giving the rates for 1931 and previous two decennia :—

Periods.	Pulmonary.			Non-Pulmonary.			All Forms.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.
1911—1920	2.55	2.01	2.27	.58	.54	.56	3.13	2.55	2.83
1921—1930	2.03	1.63	1.82	.74	.67	.70	2.77	2.30	2.52
1931	1.66	1.36	1.50	.58	.49	.53	2.24	1.85	2.03

Thus the rates recorded in 1931 show substantial declines as compared with the average rates of the two preceding decennia.

## AGE AND SEX DISTRIBUTION OF THE NOTIFICATIONS OF TUBERCULOSIS, 1931.

Age.	Pulmonary.			All other forms.			Total 1931.			Total 1930.
	M.	F.	P.	M.	F.	P.	M.	F.	P.	Persons.
— 1	—	—	—	—	—	—	—	—	—	—
1—5	—	—	—	10	8	18	10	8	18	11
5—10	6	5	11	5	4	9	11	9	20	20
10—15	3	6	9	5	3	8	8	9	17	15
15—20	5	4	9	2	3	5	7	7	14	7
20—25	7	13	20	1	3	4	8	16	24	15
25—35	12	14	26	—	—	—	12	14	26	32
35—45	15	13	28	1	—	1	16	13	29	33
45—55	14	6	20	—	2	2	14	8	22	15
55—65	4	1	5	—	—	—	4	1	5	8
65+	3	1	4	—	—	—	3	1	4	5
Total ...	69	63	132	24	23	47	93	86	179	161

The Table shows the usual irregularities associated with limited numbers. There were no notifications under 1 year of age, and the notifications of the Pulmonary variety concentrated as usual at the ages 25—45.

## PRINCIPAL SITES OF TUBERCULOSIS.

The following Table shows the number of cases of the different varieties of Tuberculosis, notified since 1921 :—

Situation of Disease.	Average 1921—1925	Average 1926—1930	1927	1928	1929	1930	1931
Pulmonary ...	175.6	127.8	127	141	132	116	132
Abdominal ...	7.6	8.6	7	11	4	9	4
Cerebral ...	5.2	6.0	4	10	8	5	11
General ...	0.6	0.2	—	1	1	1	—
Bones and Joints ...	19.6	13.4	19	5	15	6	5
Glands ...	17.2	20.4	18	10	23	19	24
All other forms of T.B. ...	12.4	6.0	5	7	6	5	3
<b>TOTAL ...</b>	<b>238.2</b>	<b>182.4</b>	<b>180</b>	<b>185</b>	<b>189</b>	<b>161</b>	<b>179</b>

The most notable features of this Table are the small numbers of notifications of Abdominal, Bones and Joint Tuberculosis.

## TUBERCULOSIS SURVIVAL TABLE CORRECTED TO DECEMBER 31st, 1931.

The number of persons notified as suffering from the various forms of Tuberculosis and known to have survived on December 31st, 1931, are shown as follows :—

Sex.	Pulmonary.	Non-Pulmonary.	All Forms.
Males	637	296	933
Females	588	280	868
Persons	1225	576	1801
Persons	1930	1194	566
	1929	1179	529
	1928	1145	506
	1927	1092	527
	1926	1095	484
	1925	1054	436
	1924	1058	415

The number of survivors continues to increase slowly, both for the Pulmonary and Non-Pulmonary types.

## TUBERCULOSIS DISPENSARY.

The number of cases on the Dispensary Register (as distinct from the Notification Register) at December 31st, 1931, was 678.

This figure includes only those cases presenting themselves at the Dispensary during the last two years.

220 X-Ray examinations were carried out during 1931.

The Tuberculosis Officer paid 28 visits to the homes of patients, and in addition furnished Practitioners with 169 written reports upon patients sent to him for examination.



Year.	No. of Patients attending Dispensary.	No. of Visits paid by Patients.	No. of Visits to Homes by Nurse.
Average			
1921—1925	569	3000	2622
1926—1930	587	2331	3171
1926	547	2823	3176
1927	587	2771	3194
1928	599	2289	3578
1929	605	1916	3079
1930	600	1858	2827
1931	581	2156	3495

The number of persons attending the Dispensary is thus fairly constant, corresponding with the number of new cases coming to light.

There was a considerable increase in the number of Home Visits.

### INSTITUTIONAL TREATMENT OF TUBERCULOSIS.

During the year 129 patients were admitted to Institutions for the treatment of Tuberculosis, 132 were discharged, and 12 died.

With regard to the cases discharged from Institutions, the following summary of the results of treatment is furnished by the Medical Superintendents :—

Condition at time of discharge.	No. of cases.			
	Pulmonary.	Other Forms	Others.	Total.
Quiescent ... ..	32	12	—	44
Not Quiescent ... ..	52	22	—	74
Observation only ... ..	—	—	14	14
TOTAL	84	34	14	132

The figures are below those of the previous year, because it was found necessary to close the Tuberculosis Blocks at the Isolation Hospital, as the Wards were required for Diphtheria. These Blocks remained closed to Tuberculosis for the greater part of the year.

### IPSWICH SANATORIUM.

The Tables show results of the treatment of 203 cases, including 65 Ipswich cases, treated to a conclusion during the year 1931. In the first Table all cases are shown, including Ipswich cases. In the second Table Ipswich cases are shown separately.

The classifications are in accordance with the Ministry of Health Memorandum 37/T (Revised). The Medical Superintendent regrets the revision of the classification of results as, in the "Not Quiescent" class, there is no differentiation between cases which have improved under treatment and cases which show no improvement or are worse.

Many of the cases shown as "Not Quiescent" are improved sufficiently to be able to work.

TABLE I. ALL CASES.

Classification on Admission.	Condition at time of Discharge.	Duration of Residential Treatment.												Grand Totals.		
		Under 3 Months.			3-6 Months.			6-12 Months.			More than 12 Months.					
		M	F	C	M	F	C	M	F	C	M	F	C			
T.B. minus Class	Quiescent ...	9	1	—	13	15	1	5	12	15	2	1	12	29	28	86
	Not Quiescent	2	10	4	2	—	2	—	—	2	—	—	2	4	10	24
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
T.B. Plus Class	Quiescent ...	—	1	—	4	2	—	2	2	—	—	—	—	6	5	11
	Not Quiescent	—	1	—	1	—	—	—	—	—	—	—	—	1	1	2
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
T.B. plus Class	Quiescent ...	—	—	—	1	4	—	1	1	—	—	—	—	2	5	7
	Not Quiescent	2	2	—	3	3	—	—	3	—	1	—	—	6	8	14
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
T.B. plus Class	Quiescent ...	—	7	—	7	6	—	3	7	1	4	6	—	14	26	1
	Not Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	41
	Died in Institution ...	2	3	—	—	1	—	3	4	—	—	1	—	5	9	14
Peripheral Glands.	Quiescent ...	—	—	—	—	—	—	—	—	1	—	—	—	—	1	1
	Not Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## OBSERVATION CASES.

For Pulmonary Tuberculosis	Diagnosis on Discharge from Observation.	Stay under 4 Weeks.			Stay over 4 Weeks.			Totals		
		M	F	C	M	F	C	M	F	C
	Tuberculous ...	—	2	2	—	—	—	—	2	2
	Non-Tuberculous ...	—	1	—	2	—	—	2	1	—
	Doubtful ...	—	—	—	—	—	—	—	—	—
	Totals ...	—	3	2	2	—	—	2	3	2



TABLE II. IPSWICH CASES.

Classification on Admission.	Condition at time of Discharge.	Duration of Residential Treatment.												Grand Totals.			
		Under 3 Months.			3-6 Months.			6-12 Months.			More than 12 Months.				Totals.		
		M	F	C	M	F	C	M	F	C	M	F	C		M	F	C
Class T.B. Minus.	Quiescent ...	5	—	—	8	4	1	1	3	5	1	1	7	15	8	13	36
	Not Quiescent ...	1	1	4	1	—	1	—	—	1	—	—	1	2	1	7	10
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Class T.B. Plus	Quiescent ...	—	—	—	2	—	—	—	—	—	—	—	—	2	—	—	2
	Not Quiescent ...	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	1
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Class T.B. Plus	Quiescent ...	—	—	—	1	1	—	—	—	—	—	—	—	1	1	—	2
	Not Quiescent ...	—	—	—	1	1	—	—	1	—	—	—	—	1	2	—	3
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Class T.B. Plus	Quiescent ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Not Quiescent ...	—	—	—	2	—	—	—	1	1	2	—	—	6	1	1	8
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		1	—	—	—	—	—	—	—	—	—	—	1	1	1	—	2
Peripheral Glands.	Quiescent ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Not Quiescent ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## OBSERVATION CASES.

For Pulmonary Tuberculosis.	Diagnosis on Discharge from Observation.	Stay under 4 Weeks.			Stay over 4 Weeks.			Totals.		
		M	F	C	M	F	C	M	F	C
Tuberculous ...	...	—	—	—	—	—	—	—	—	—
Non-Tuberculous ...	...	—	—	—	—	—	—	—	—	—
Doubtful ...	...	—	—	—	—	—	—	—	—	—
Totals ...	...	—	—	—	1	—	—	1	—	—

W. F. SUTCLIFFE,  
Medical Superintendent.

## TREATMENT OF CASES OF SURGICAL TUBERCULOSIS.

## A.—EAST SUFFOLK AND IPSWICH HOSPITAL.

The following Table gives the number of Patients treated at the East Suffolk and Ipswich Hospital :—

Year.	Remaining from Previous Year.	Admitted.	Treated.	Discharged.	Deaths.	Remaining.
1925	12	44	56	45	3	8
1926	8	53	61	48	2	11
1927	11	29	40	36	2	2
1928	2	26	28	22	6	—
1929	—	21	21	19	1	1
1930	1	21	22	20	1	1
1931	1	24	25	18	—	7

There was thus a considerable decline in the number of cases dealt with at this Hospital due to the fact that the number of cases of Surgical Tuberculosis was so small.

## B.—IPSWICH ISOLATION HOSPITAL.

Year.	Remaining from Previous Year.	Admitted.	Treated.	Discharged.	Deaths.	Remaining.
1925	—	10	10	3	—	7
1926	7	6	13	4	1	8
1927	8	30	38	17	1	20
1928	20	20	40	23	3	14
1929	14	35	49	26	4	19
1930	19	32	51	34	2	15
1931	15	2	17	17	—	—

The cases admitted during the year fell into the following groups :—

Bones and Joints	...	...	1
Glandular	...	...	1

The prevalence of Diphtheria caused the closure of this Ward to cases of Surgical Tuberculosis on the 21st January, 1931. The Ward remained closed the whole of the remainder of the year.

Fortunately the number of new cases of Surgical Tuberculosis was small, so that the dislocation of treatment was not so acute as it might well have been.

## DENTAL WORK IN CONNECTION WITH TUBERCULOSIS.

Mr. T. A. Edmondson, the Dental Surgeon, reports as follows :—  
Dear Sir,

I beg to report on the dental treatment of Tuberculosis cases for the year ending 31st December, 1931. Of these there are two classes, viz., those treated at the Dental Clinic and those treated at the Ipswich Isolation Hospital.

The work done for both classes is detailed as follows :—

	Males.	Females.	Total.
Number inspected at Clinic ...	42	27	69
„ „ „ Ipswich Isolation Hospital	6	8	14
„ of visits to „ „ „			11
„ having one or more septic teeth ...	38	22	60
„ of cases treated ...	24	23	47
„ „ attendances made ...	78	70	148
„ „ temporary teeth extracted ...	8	—	8
„ „ permanent teeth extracted ...	42	65	107
„ „ local anæsthetic cases ...	22	27	49
„ „ nitrous oxide administrations ...	3	2	5
„ „ fillings in permanent teeth ...	41	27	68
„ „ permanent teeth filled ...	38	24	62
„ „ scalings, etc., of permanent teeth...	88	204	292
„ „ dentures fitted ...	—	1	1

Of the 69 cases inspected at the Clinic, 35 were candidates for the Ipswich Sanatorium and 3 for the Borough Isolation Hospital.

23 insured persons entitled to Dental Benefit were referred to private practitioners for treatment.

10 cases were sent from the Sanatorium to the Clinic for urgent treatment.

(Signed) T. A. EDMONDSON,  
Dental Surgeon.

Mr. A. W. T. Ward, the Assistant Dental Surgeon, reports as follows :—

Dear Sir,

During 1931, 11 visits were made to the Isolation Hospital, and as a result of these visits, 4 patients received dental treatment.

Unfortunately, owing to the prevalence of other epidemics, the Tuberculosis Ward was closed early in the year and the dental visits automatically ceased.

(Signed) A. W. T. WARD,  
Assistant Dental Surgeon.

## MATERNITY AND CHILD WELFARE.

### MATERNITY WELFARE.

Clinics held under the Maternity and Child Welfare Scheme under the personal supervision of the Assistant Medical Officer (Dr. Doris E. P. Jolly).

Mothers—Wednesday and Friday, 2.30 p.m., Elm Street.

# ANTE AND POST-NATAL CLINICS.

The following Table gives the numbers examined and the total examinations by the Medical Officer, Dr. Jolly :—

Year.	Ante-Natal.			Post-Natal.			Total Examinations.
	Cases Examined.	Re examinations.	Total.	Cases Examined.	Re-examinations.	Total.	
1924	27	18	45	—	—	—	45
1925	61	65	126	—	—	10	136
1926	123	81	204	—	—	48	252
1927	206	71	277	52	43	95	372
1928	290	115	405	67	66	133	538
Average	141	70	211	—	—	—	268
1929	311	343	654	79	63	142	796
1930	447	687	1134	92	44	136	1270
1931	476	656	1132	104	44	148	1280

# ANTE AND POST-NATAL CLINICS.—DEFECTS FOUND.

The examinations carried out at the Ante-Natal and Post-Natal Clinics revealed the following defects :—

Defect.			Ante-Natal.			Post-Natal.
			Public Health Dept.	Maternity Home.	Total.	
Albuminuria	...	...	19	3	22	—
Anæmia	...	...	2	1	3	5
Breast Disorders	...	...	1	2	3	7
Contracted Pelvis	...	...	6	—	6	—
Debility	...	...	1	—	1	13
Dental Caries	...	...	136	67	203	23
Disease of Heart	...	...	2	1	3	—
Dyspepsia	...	...	24	—	24	1
Gynæcological Disorders	...	...	7	—	7	20
Hæmorrhage	...	...	7	—	7	—
Hæmorrhoids	...	...	—	—	—	4
Malpresentation	...	...	2	—	2	—
Neuralgia	...	...	1	—	1	3
Oedema	...	...	5	—	5	—
Ophthalmic Disorders	...	...	3	1	4	1
Respiratory Diseases	...	...	5	4	9	2
Skin Disorders	...	...	4	—	4	2
Tuberculosis	...	...	—	—	—	1
Varicose Veins	...	...	21	19	40	—
All others	...	...	35	2	37	15
TOTAL	...	...	281	100	381	97

## REPORT BY THE MEDICAL OFFICER IN CHARGE OF THE ANTE-NATAL CLINIC.

The number of new cases attending the Ante-Natal Clinic in 1931 showed a slight increase in spite of the lower birth-rate; the attendances now represent 60% of all midwives' deliveries compared with 4% in 1924 when the Clinic was opened.

During the last eight years there have been 11,529 births in the Borough, and 50 mothers have lost their lives in consequence—a maternal mortality of 4.3. In the same period approximately 1,800 of these mothers passed through the Ante-Natal Centre, and 2 subsequently died through childbirth—a maternal mortality of 1.1.

Of these two deaths, one made a single attendance at the beginning of the pregnancy and died 8 months later; in the other case the albuminuria preceding the fatal illness was found on routine examination and the urgency of obtaining immediate and adequate treatment impressed upon the woman, but without avail. Two of the three maternal deaths in 1931 were midwives' cases, in which toxæmia of pregnancy was considered a contributory cause of death. It is this type of case which routine ante-natal care aims at eliminating.

Whilst these figures are, of course, far too small to afford any absolute proof, they do appear to suggest that, if complete co-operation could be obtained between the expectant mother, the midwife and doctor or clinic, in the matter of adequate ante-natal supervision and care, some diminution in the rate of maternal mortality might be expected. It cannot, however, be too greatly stressed that the maximum success can only be obtained through such team work.

As in previous years, the stillbirth rate, too, was appreciably lower among the midwife group where regular pre-natal care is given as a routine.

22 cases of albuminuria were found in the course of 843 routine examinations of urine, some mild and transient, others sufficiently severe to require admission to hospital. All these women passed safely through their confinement.

Since during the last 8 years, 10 of the maternal deaths have been attributed partly or solely to disordered kidney function, the importance of the frequency of the testing is evident.

In all, 36 women, or just under 10% of the cases attending, were referred to their own doctor or the hospital, for the treatment of disease or defect found. This corresponds approximately with the experience of other years.

(Signed) D. E. P. JOLLY.

## IPSWICH MATERNITY HOME.

I append a Table which shows the admissions since the opening of the Home in July, 1918 :—

Year.	Cases admitted from			Total No. of Days.	Average duration of stay in days.	Per cent. of Total Ipswich Births.
	Ipswich.	Outside Areas.	Total.			
1919—1920	144	18	162	2,112	13.0	4.2
1921—1925	356	61	417	4,732	11.3	4.7
1926—1930	560	133	693	7,521	10.9	7.8
1926	71	15	86	935	10.8	4.6
1927	87	15	102	1,154	11.3	6.2
1928	114	27	141	1,562	11.1	8.2
1929	136	31	167	1,803	10.8	9.6
1930	152	45	197	2,067	10.5	10.6
1931	169	50	219	2,296	10.5	12.2

67.6 per cent. of the women were confined by the midwives at the Home.

In 41 cases, or 28 per cent., medical assistance was sought, in 13 cases during labour, in 19 after labour, and in 9 for the infant.

Four cases of Puerperal Fever and four of Puerperal Pyrexia were notified during the year.

There were no maternal deaths, but 2 infants died under 10 days.

Six infants were stillborn.

The increase in the demand for Maternity Home accommodation rendered it necessary to increase the size of the Home. Accordingly alterations were carried out at Wingfield Street, which increased the number of rooms to 15, with two Labour rooms in addition.

The new premises were occupied on June 23rd, 1931.

The Home is adequately equipped and staffed, and is in increasing demand as the Table shows.

### MIDWIVES ACTS, 1902 AND 1918.

The number of midwives on the Local Roll at the close of 1931 was 15, and of these 6 were connected with the Ipswich Nurses' Home, Lower Brook Street, and 2 with the Ipswich Maternity Home.

The cases attended by midwives amounted to 815, a figure which is made up as under :—

At Maternity Home	...	...	...	...	148
District Cases attended by Midwives from Ipswich Nurses' Home	...	...	...	...	211
Unattached or Outside Midwives	...	...	...	...	456

The midwives attended 56% of the Births registered during the year.

The figure given above (815) includes County and outside cases admitted to the Maternity Home.

The Table shows the number of cases in which the midwives required medical help :—



Year.	Notifications received.			Percentage of Births attended by Midwives in which Medical Help was called in.
	On behalf of Mother.	On behalf of Child.	Total.	
1921-1925	320	164	484	12.5%
1926-1930	372	174	546	12.5%
1926	76	38	114	13.5%
1927	64	37	101	13.0%
1928	78	21	99	12.1%
1929	73	39	112	12.2%
1930	81	39	120	12.6%
1931	88	37	125	15.3%

There was, therefore, a substantial increase in the number of calls for medical help in 1931.

The causes for which medical help was required are set forth as follows:—

	1931.	1930.	1929.	1928.	1927.	Average 1926-1930.	Average 1921-1925.
<b>MOTHER:—</b>							
Torn Perineum ...	30	27	19	20	18	21	16
Prolonged, Tedious or Difficult Labour ...	16	13	6	19	14	12	11
Faulty Presentations...	7	7	7	7	8	7	7
Impactions ...	4	4	3	3	5	4	4
Hæmorrhages ...	9	6	9	7	3	6	4
Puerperal Fever ...	2	4	6	5	—	4	2
Other Rise of Temperature ...	3	2	2	2	2	2	4
Adherent Placenta ...	3	—	4	6	2	3	3
Albuminuria ...	—	3	—	—	1	1	2
Phlebitis ...	1	1	3	1	2	2	1
Abortion ...	1	1	1	—	2	1	1
Contracted Pelvis ...	—	—	—	—	—	—	1
Eclampsia ...	—	1	3	—	—	1	1
Prolapse of Cord ...	—	1	—	1	—	1	1
Miscellaneous ...	12	11	10	7	7	9	6
<b>TOTAL ...</b>	<b>88</b>	<b>81</b>	<b>73</b>	<b>78</b>	<b>64</b>	<b>74</b>	<b>64</b>
<b>CHILD:—</b>							
Discharging Eyes ...	10	11	8	4	6	8	10
Debility, Feebleness, etc. ...	9	5	12	6	13	9	8
Prematurity ...	5	6	4	1	5	5	6
Malformations ...	2	4	4	3	6	4	2
Convulsions and Fits	1	1	—	—	2	1	2
Suffocation ...	—	—	—	1	—	—	1
Hæmorrhages (various)	2	4	4	—	—	2	—
Miscellaneous ...	8	8	7	6	5	6	3
<b>TOTAL ...</b>	<b>37</b>	<b>39</b>	<b>39</b>	<b>21</b>	<b>37</b>	<b>35</b>	<b>32</b>

Thus the main causes are very constant.



## ASSISTANCE SCHEMES IN CONNECTION WITH MATERNITY WELFARE.

The four main sections in the Scheme are: (a) Milk and Milk Foods to expectant and nursing mothers; (b) Provision of Maternity Home accommodation at reduced fees; (c) Help towards the payment of the fees of Medical Practitioners called in by Midwives under the Midwives Act; (d) Provision of Dental treatment and Dentures.

### (a) MILK AND MILK FOODS SUPPLIED DURING 1931.

	No.	Pints of Milk.
Expectant Mothers ... ..	59	2,784
Nursing Mothers ... ..	181	21,744
Total ...	<u>240</u>	<u>24,528</u>

In 1930, 143 mothers were supplied with 12,812 pints of milk. The increase in 1931 was due to the industrial situation.

### (b) MATERNITY HOME FEES.

123 women out of a total of 169 were admitted to the Ipswich Maternity Home at reduced fees. This represents 73 per cent. of assisted cases in 1931 as compared with 59% in 1930, 57% in 1929, and 62% in 1928.

The industrial situation was responsible for the increase.

The full fee is 9s. per day, but women were admitted at varying rates as under:—

8/- ... 5	5/- ... 19	2/6 ... 4
7/- ... 10	4/6 ... 12	2/- ... 13
6/6 ... 2	4/- ... 22	1/6 ... 1
6/- ... 17	3/6 ... 3	1/- ... 1
5/6 ... 5	3/- ... 9	Free ... Nil.

The same procedure was followed as in previous years, and the charges are fixed in accordance with an income scale.

### (c) DOCTOR'S FEES.

The midwives found it necessary to call in medical assistance at 121 confinements, involving 125 requisitions (in 1 case for both mother and child, and in 3 cases there were 2 requisitions for one patient).

Accounts were received from Medical Practitioners in 88 of these cases.

The amount paid by the Local Authority was £97 5s. 0d., and in 52, or 59 per cent., of these cases, the fee has been settled in full, the amount recovered being £52 0s. 6d.

27, or 31 per cent., desired to pay by instalments, and the sum received to date totals £17 10s. 6d.

In 7 cases the fee due has been written off on account of poverty.

To date, therefore, 71 per cent. of the cost under this heading has been recovered.

#### (d) DENTAL TREATMENT.

### DENTAL WORK IN CONNECTION WITH MATERNITY WELFARE.

Mr. T. A. Edmondson, the Dental Surgeon, reports as follows :—

#### ANTE AND POST-NATAL.

Dear Sir,

I beg to report on the dental treatment of Maternity Cases for the year ending December 31st, 1931. There are two classes, viz. : Ante-Natal and Post-Natal.

The work done is detailed as follows :—

		Ante Natal.	Post Natal.	Total.
Number of mouths examined	...	132	52	184
„ having 1 or more septic teeth	...	117	46	163
„ advised to have treatment	...	132	52	184
„ actually treated at Clinic	...	81	45	126
„ of attendances made	...	274	168	442
„ „ teeth extracted	...	347	254	601
„ „ Nitrous Oxide administrations	...	78	56	134
„ „ amalgam fillings	...	19	9	28
„ „ amalgam and cement fillings	...	43	11	54
„ „ cement fillings	...	22	7	29
„ „ fillings (total)	...	84	27	111
„ „ teeth filled	...	81	26	107
„ „ sundry dressings	...	239	376	615

It will be noticed that of the Ante-Natal cases advised treatment, 47% actually accepted treatment, a gratifying increase of 14.36% over the previous year, whilst 86.53% Post-Natals were treated.

Dentures were supplied in 7 cases, 2 Ante-Natal and 5 Post-Natal.

In the case of people who are unable to pay the full amount for the provision of dentures the Public Health Committee is prepared to pay an agreed proportion

(Signed) T. A. EDMONDSON,  
Dental Surgeon.

## CHILD WELFARE.

The following is a Summary of the Home Visits since 1921 :—

### HOME VISITS BY HEALTH VISITORS.

Year.	Expectant Mothers.	Children.		
		— 1	1—5	Total.
Average				
1921—1925	14	2,090	1,910	4,000
1926—1930	35	1,596	3,012	4,608
1926	18	1,643	2,149	3,792
1927	6	1,477	2,094	3,571
1928	20	1,621	4,432	6,053
1929	55	1,590	3,384	4,974
1930	75	1,647	3,004	4,651
1931	61	2,965	5,992	8,957

The large increase in the number of Home Visits is obvious. It is due to reorganisation so that each of the four Health Visitors has a definite area to look after. In addition the Health Visitors are now responsible for the work on Infections formerly discharged by a special officer.

In addition the Health Visitors paid visits under the following headings :—

To Midwives	...	...	...	...	54
„ Cases in which Midwives had summoned Medical assistance	...	...	...	...	125
„ Cases notified as suffering from Puerperal Fever or Ophthalmia Neonatorum, etc.	...	...	...	...	44
„ Stillbirths	...	...	...	...	65
„ Miscellaneous Visits	...	...	...	...	2,341

1,089 visits were paid by members of the staff to homes in connection with fees relating to Medical assistance and the Maternity Home.

### WORK OF INFANT CLINIC.

Under the supervision of the Health Visitors—Every Week-day afternoon except Saturday, 2.30 p.m., Elm Street.

The following is a summary of the visits paid to the Infant Welfare Centres since 1921.

Year.	Infants —1.	Children 1—5.	Total.
Average			
1921—1925	7,502	3,013	10,515
1926—1930	8,711	3,833	12,544
1926	7,428	3,083	10,511
1927	7,076	3,206	10,282
1928	9,144	4,079	13,223
1929	10,063	4,454	14,515
1930	9,846	4,345	14,191
1931	11,684	5,871	17,555

(The Branch Clinic figures are included.)

These figures are impressive, especially those for the 1—5 group.

The following Table shows the number of visits paid to the Nacton Clinic :—

#### BRANCH CLINIC (Nacton Estate).

Year.	Infants —1.	Children 1—5.	Total.
1929	1,243	481	1,724
1930	1,916	596	2,512
1931	2,660	1,263	3,923

Thus this Clinic has proved its value in spite of the somewhat unsatisfactory nature of the premises in which it is held.

The very great increase in the 1—5 group proves its necessity.

Much of the success of this Clinic is due to the work of the Health Visitor for the District.

#### EXAMINATION OF INFANTS BY MEDICAL OFFICER.

Under the Personal Supervision of the Assistant Medical Officer  
(Dr. Doris E. P. Jolly),

Infants—Monday and Thursday, 2.30 p.m., Elm Street.

„ Tuesday, 2.30 p.m., Red Triangle Hut, Nacton Estate.

The infants examined by the Medical Officer during 1931 are classified in the following Table according to age groups :—

Age.	No. of Infants Examined.	No. of Re-Examinations.	Total for Year.	1930.	Average 1926—1930.
—1	940	2,748	3,688	2,439	1,645
—2	282	670	952	648	445
—3	212	294	506	273	217
—4	168	199	367	240	161
—5	100	130	230	164	117
Total	1,702	4,041	5,743	3,764	2,585

## REPORT BY THE MEDICAL OFFICER IN CHARGE OF THE INFANT WELFARE CENTRE.

The number of infant consultations showed a large increase in 1931, so much so, that on many occasions it was found difficult to devote adequate time to individual cases.

A partial explanation of the sudden increase is found in the greater number of infants in 1931 coming under the free milk scheme—since these children are required to be brought up at regular intervals for inspection in order that a watch may be kept on their general state of nutrition and progress.

As in former years, the value of a combination of sunlight treatment with dietetic in certain types of marasmus in young infants has been evident in a few cases, quite dramatic results have been obtained.

The increased attendance of the toddler group is satisfactory, and defects, such as carious teeth, unhealthy tonsils, squint, etc., have been dealt with in earlier stages than would have been possible if the medical examination had been delayed until entry to school. In view of the recent Diphtheria epidemic an effort is now being made to persuade the parents of the value of immunisation. Some headway has been made, but the cost is a matter of concern to many, especially where there are several children in the family.

The Clinic at Nacton Estate has shown steady expansion, and the present accommodation, in which waiting, weighing and medical inspection have all to be carried on simultaneously in one large room, is quite inadequate since the average attendance per session is now approximately 80, and therefore the chance of obtaining a quiet interval for examination of a sick child remote.

(Signed) D. E. P. JOLLY.

### ARTIFICIAL LIGHT CLINIC.

Artificial Light Clinic—Monday, Tuesday, Thursday and Friday,  
2.30 p.m., Elm Street.

The figures in the appended Table show the number of children who attended :—

Age.	No of Children Treated.	Number of Re-Visits	Total 1931.	1930.	*1929.	1928.
— 1	31	314	345	299	76	23
— 2	31	362	393	389	125	235
— 3	16	183	199	163	107	225
— 4	10	184	194	192	184	205
— 5	11	215	226	132	140	170
Total ...	99	1,258	1,357	1,175	632	858
School Children	172	2,914	3,086	2,509	1,438	3,116
Grand Total ...	271	4,172	4,443	3,684	2,070	3,974

\* Six months only

The following Table shows the defects of the children referred to the Sunlight Clinic :—

Defect.	— 5 years.	+ 5 years.	Total.
Subnormal Nutrition ...	30	20	50
Pretubercular Debility ...	—	1	1
Enlarged Glands (Neck) ...	7	7	14
Rachitic & Prerachitic ...	10	—	10
Tuberculous Affections :—			
Cervical Glands ...	2	13	15
Abdominal ...	—	1	1
Bones & Joints ...	—	3	3
Lupus ...	—	1	1
Convalescence following			
Infectious Diseases ...	2	3	5
Catarrhal and Bronchial			
Infections ...	3	3	6
Anæmia and Debility ...	11	45	56
Unclassified ...	7	9	16
<b>TOTAL ALL FORMS ...</b>	<b>72</b>	<b>106</b>	<b>178</b>

### OPHTHALMIA NEONATORUM.

9 cases were notified in 1931, as compared with 19 in the previous year.

5 cases were treated at home by medical practitioners, with the nursing assistance of the nurses belonging to the Public Health Department and the Ipswich Nurses' Home.

In 8 cases recovery ensued without impairment of vision; the result of the other case is not known, as the parents removed out of the town.

Of the cases removed to Hospital, 2 were admitted to the East Suffolk and Ipswich Hospital, 1 to the Isolation Hospital, and 1 to the Municipal Hospital.

### INFANT LIFE PROTECTION (CHILDREN'S ACT, 1908).

At the beginning of 1931 there were 49 Foster-Mothers and 64 children on the Register, whilst at the end of the year there remained 63 Foster-Mothers and 75 children.

This was the first complete year of working under the new arrangements, and the Health Visitors paid 198 visits to children under 5 years of age and 53 to children between 5 and 7 years.

The result of the year's working has shown itself in the number remaining at the end of the year, and this illustrates that a better system of notification and recording is now in vogue.

Two Foster-Mothers were refused recognition, and in one case the child was removed to better surroundings.



## ASSISTANCE SCHEMES IN CONNECTION WITH CHILD WELFARE.

The main sections of the schemes are :—(a) Milk and Milk Foods for Infants; (b) Provision of Dental Treatment.

### (a) MILK AND MILK FOODS.

	No. of Babies.	Pints of Milk.
Cows' Milk ... ..	15	635
Dried Milk ... ..	73 - 989 lbs.	5,687
	88	6,322

In 1930, 65 babies were supplied with 829 pints of cows' milk, and 760 lbs. of dried milk, or 4,140 pints, a total of 4,969 pints of milk.

The increase in 1931 was due to the industrial position.

### (b) DENTAL TREATMENT.

## DENTAL WORK IN CONNECTION WITH INFANT WELFARE.

Mr. Edmondson reports as follows :—

	Males.	Females.	Total.
No. of cases inspected at Clinic ... ..	180	169	349
.., having septic conditions of the mouth...	168	154	322
Actual number of cases treated at Clinic ...	164	150	314
No. of attendances ... ..	266	225	491
.., temporary teeth extracted ... ..	505	425	930
.., Local Anæsthetic cases ... ..	16	16	32
.., Nitrous Oxide Administrations ... ..	192	161	353
.., Fillings ... ..	35	24	59
.., Sundry dressings ... ..	109	9	118
.. to whom advice was given, treatment not being necessary ... ..	11	13	24

The ages of the children treated ranged from 1 year 8 months to 5 years as follows :—1 year, 4; 2 years, 25; 3 years, 90; 4 years, 195.

(Signed) T. A. EDMONDSON,

Dental Surgeon.

Briefly, the work has doubled in one year.

This should tend to lighten Dental Work at the commencement of School life.



## BOROUGH ISOLATION HOSPITAL.

The appended Table shows the total numbers admitted to, and treated at the Hospital since 1901 :—

Year.	Admissions.	Total Treated.
Annual		
Average 1901—1910	176	202
.. 1911—1920	574	634
.. 1921—1930	490	561
1921	660	762
1922	393	472
1923	386	433
1924	304	332
1925	373	419
1926	317	383
1927	438	497
1928	543	629
1929	732	821
1930	756	863
1931	1,068	1,200

The number of patients admitted to the Isolation Hospital in 1931 was by far the largest yet recorded. This was the outcome of simultaneous epidemics of Scarlet Fever and Diphtheria in Ipswich and surrounding areas of the County.

The pressure on the available accommodation was so great that it was necessary to close the wards allocated to the treatment of Surgical Tuberculosis and advanced Pulmonary Tuberculosis and utilise them for the treatment of Fever.

Patients were admitted to the Hospital from the undermentioned Authorities :—

Authority.	Infectious Diseases.	Tuberculosis.	Total.
Ipswich ... ..	902	18	920
East Suffolk C.C. ... ..	10	1	11
Norfolk C.C. ... ..	—	2	2
Harwich U.D.C. ... ..	2	—	2
Saxmundham U.D.C. ... ..	1	—	1
Woodbridge U.D.C. ... ..	4	—	4
Aldeburgh U.D.C. ... ..	9	—	9
Felixstowe U.D.C. ... ..	20	—	20
Leiston U.D.C. ... ..	3	—	3
Hadleigh U.D.C. ... ..	1	—	1
Cosford R.D.C. ... ..	8	—	8
Samford R.D.C. ... ..	15	—	15
Woodbridge R.D.C. ... ..	17	—	17
Bosmere & Claydon R.D.C. ... ..	24	—	24
Blything R.D.C. ... ..	5	—	5
Plomesgate R.D.C. ... ..	8	—	8
Hoxne R.D.C. ... ..	10	—	10
Royal Air Force ... ..	5	—	5
Private O.B. Cases ... ..	3	—	3
<b>TOTAL</b> ... ..	<b>1,047</b>	<b>21</b>	<b>1,068</b>

The following Table gives the usual details as to admissions, etc. :—

Disease		Average 1921-1925	Average 1926-1930	1930	1931
INFECTIOUS DISEASES.	No. in Hospital Jan. 1st	41	47	64	89
	Admissions ...	357	475	659	1,047
	Total Treated ...	398	522	723	1,136
	No. discharged ...	349	444	610	938
	„ of deaths ...	16	21	24	37
	„ Remaining Dec. 31st	33	57	89	161
TUBERCULOSIS.	No. in Hospital Jan. 1st	18	21	24	28
	Admissions ...	66	57	65	19
	Total Treated ...	84	78	89	47
	No. Discharged ...	46	28	34	36
	„ of Deaths ...	18	28	27	11
	„ Remaining Dec. 31st	20	22	28	—
SURGICAL TUBERCULOSIS.	No. in Hospital Jan. 1st	—	14	19	15
	Admissions ...	—	25	32	2
	Total Treated ...	—	39	51	17
	No. Discharged ...	—	21	34	17
	„ of Deaths ...	—	3	2	—
	„ Remaining Dec. 31st	—	15	15	—
TOTAL.	No. in Hospital Jan. 1st	59	82	107	132
	Admissions ...	423	557	756	1,068
	Total Treated ...	482	639	863	1,200
	No. Discharged ...	395	493	678	991
	„ of Deaths ...	34	52	53	48
	„ Remaining Dec. 31st	53	94	132	161

Table showing the principal Diseases admitted to the Isolation Hospital, together with the fatalities attached to each:—

Diseases	No. of Cases Admitted			Deaths			Case Fatality per cent.
	Ipswich	Other Districts	Total	Ipswich	Other Districts	Total	
Scarlet Fever ...	449	53	502	1	—	1	0.19
Diphtheria ...	306	60	366	23	7	30	8.19
Other Throat, etc. Diseases—							
+ Contacts ...	61	—	61	—	—	—	—
+ Carrier ...	1	—	1	—	—	—	—
Tonsillitis ...	15	6	21	—	1	1	4.76
Puerperal Fever ...	14	10	24	—	1	1	4.01
Do. Pyrexia ...	2	—	2	—	—	—	—
Measles ...	12	5	17	—	—	—	—
Erysipelas ...	4	1	5	—	—	—	—
Pertussis ...	3	1	4	—	—	—	—
Paratyphoid B ...	3	1	4	—	—	—	—
Chicken Pox ...	2	1	3	—	—	—	—
Pneumonia ...	2	1	3	—	1	1	33.3
Cerebro-Spinal Fever	2	—	2	1	—	1	50.0
Miscellaneous Group	7	2	9	1	1	2	22.2
Nils, Queries, etc. ...	19	4	23	—	—	—	—
<b>TOTAL (Infectious Group) ...</b>	<b>902</b>	<b>145</b>	<b>1,047</b>	<b>26</b>	<b>11</b>	<b>37</b>	<b>3.53</b>
Tuberculosis—							
Pulmonary ...	16	3	19	4	1	5	26.3
Other Forms ...	2	—	2	—	—	—	—
<b>GRAND TOTAL, ...</b>	<b>920</b>	<b>148</b>	<b>1,068</b>	<b>30</b>	<b>12</b>	<b>42</b>	<b>3.9</b>

It will be noted that the case fatality per cent. for Diphtheria in the case of the town was 7.5% as compared with 11.6% in the County.

### SMALLPOX HOSPITAL.

This Hospital was not opened in 1931.

It has been maintained in a condition of readiness for opening at an hour's notice.

## HEATHFIELDS MUNICIPAL HOSPITAL.

On the 1st January, 1931, there were 198 patients in the Hospital (75 males and 123 females).

During the year ended 31st December, 1931, 530 cases were admitted (277 males and 253 females).

The total number treated during the year was thus 728 persons (352 males and 376 females).

Of these 337 persons (176 males and 161 females) were discharged from the Institution and 147 died (68 males and 79 females).

The total number of persons remaining in the Institution on 31st December, 1931, was 244 (108 males and 136 females).

The duration of stay of the 484 persons who were either discharged from or who died in the Institution was as follows :—

(a) Four weeks or less	...	...	265
(b) Exceeding four weeks but under 13 weeks	...	...	129
(c) Exceeding 13 weeks	...	...	90

The types of cases admitted are indicated briefly in the following rough classification of some of the principal diseases or groups of diseases dealt with :—

Types of Cases	Nos. Admitted
Dementia 44, Senile dementia 13	57
Epilepsy ...	7
Other diseases of nervous system	48
Heart diseases	43
Senile decay	31
Diseases of skin	44
Bronchitis	25
Cancer ...	19
Tuberculosis	42
Maternity	14
Violence	17

The age distribution of the admissions was as follows :—

Age Periods.	No. Admitted.
Under 1 year	38
1—25 years	60
25—45	107
45—65	127
65—85	181
Over 85	17
Total	530

This summary indicates sufficiently clearly the types of cases making use of the Municipal Hospital.

## AMBULANCE SERVICES.

The Motor Ambulance service commenced on January 1st, 1928. It is an essential part of the equipment of the Health services. The particulars relating to the last three years are appended :—

SERVICE.		1929	1930	1931
AMBULANCE.				
Ipswich ...	Journeys Miles ...	497 2311	531 2413	761 3145
Out of Borough...	Journeys Miles ...	106 3436	97 3165	128 3300
Total ...	Journeys Miles ...	603 5747	628 5578	889 6445
BEDDING VANS.				
Collection of Bedding	Journeys Miles ...	232 1620	235 1803	279 2034
Return of Bedding	Journeys Miles ...	119 1040	119 1031	121 1176
Collection of Meat	Journeys Miles ...	108 815	126 957	122 632
Port Work Pin Mill	Journeys Miles ...	9 175	7 140	5 99
Small Pox Hospital	Journeys Miles ...	15 82	1 6	2 11
Other Journeys	Journeys Miles ...	82 1118	120 1298	125 1268
Total ...	Journeys Miles ...	565 4814	608 5235	654 5220

The very large increase in the number of journeys and mileage run by the Ambulance is a reflection of the increased number of admissions to the Isolation Hospital during 1931.

## LABORATORY.

The work carried out in the Laboratory of this Department since 1921 is as follows:—

Year.	SWABS from Cases of Diphtheria or Suspected Diphtheria.			SPUTA from Actual or Suspected Cases of Tuberculosis.		
	Ex- amined.	Positive.	Per cent. Positive.	Ex- amined	Positive.	Per cent. Positive.
Average						
1921-25	1,260	240	19%	218	52	24%
1926-30	1,560	239	15%	236	68	29%
1926	516	89	17%	173	42	24%
1927	465	52	11%	187	58	31%
1928	1,537	247	16%	228	65	28%
1929	2,200	372	17%	339	79	23%
1930	3,081	437	14%	252	95	37%
1931	5,023	793	16%	232	52	22%

The number of Diphtheria swabs was by far the largest ever dealt with in the Laboratory, and at 2/6 per swab represents work to the value of £627 17s. 6d.

843 Urines were examined in connection with the Ante-Natal Clinic, with the following results:—

Albumen, trace	...	...	39
Albumen, cloud	...	...	17
Sugar	...	...	14
Pus	...	...	1

This compares with 884 in 1930 and 588 in 1929.

Examinations carried out at the East Suffolk County Laboratory, on behalf of the Local Authority during 1931, were as follows:—

Widals (Typhoid and Para. A. and B.)	...	6
Urines	...	2
Fæces	...	2
Virulence Test K.L.B.	...	23
Cerebro-Spinal Fluid	...	2
Certified Milk	...	1
Animal Inoculation Milk	...	6
Swabs (Diphtheria)	...	17
Miscellaneous	...	10

In addition, under the V.D. Scheme, the following specimens were examined at the East Suffolk County Laboratory:—

	East Suffolk Hospital Clinic.	Private Practitioners.
For Gonococci	...	8
For Wasserman Reaction	99	125
Cultural Test for Gonococcus	88	—

## HEALTH EDUCATION.

The propaganda work in this connection was curtailed in 1931 by the exclusion of the usual "Health Week."

The reason for its cancellation, after nearly all the arrangements had been made, was the cutting down of expenditure by the Committee following the Government call for "Economy."

The distribution of the monthly Journal "Better Health" continued during the year, and it is satisfactory to record that, despite the difficulties besetting such ventures nowadays, its continuation during 1932 has been assured.

This booklet goes into 5,000 homes in Ipswich each month, and from all accounts is very highly appreciated.

## VACCINATION.

The administration of the duties relating to Vaccination has been somewhat difficult during the period under review.

In the first place Dr. W. L. Hibbert resigned and Dr. C. S. Staddon was appointed to his post, but the latter gentleman, after holding office for about a month, handed in his resignation. Dr. H. W. Farebrother was appointed Public Vaccinator early in 1932.

I regret to report that towards the end of the year the Vaccination Officer, Mr. J. Jennings, was overtaken by serious illness, which, unfortunately, had a fatal termination in March, 1932.

Mr. H. J. Walton has been appointed acting Vaccination Officer for three months in order to bring the whole business up-to-date, and it is hoped to place the functions on a permanent basis from the 1st July, 1932.

The following figures for the year 1931 have been supplied by the Acting Vaccination Officer.

No. of Children registered during 1931	...	...	1,484	
Cases Vaccinated	...	...	204	or 13.7%
No. of objections to Vaccination...	...	...	1,136	or 76.6%
No. of Infants insusceptible	...	...	6	9.7%
No. of Infants who died unvaccinated	...	...	59	
No. of Children who left the district	...	...	32	
Postponed or cases in the hands of the Public Vaccinator			47	



The following Table gives the Vaccination Returns for the Borough of Ipswich for the years 1867-1874 inclusive, as compared with those for the period April 1st, 1930, to December 31st, 1931 :—

	1867—1874.		1930—1931.	
	Numbers.	Proportions per cent.	Numbers.	Proportions per cent.
Number of Births Registered ...	9,951	—	2,688	—
.. .. Infants Vaccinated ...	8,690	87.0	406	15.1
.. .. Conscientious objections	—	—	2,026	75.3
.. .. Insusceptible Infants	25	.21	6	.21
.. .. Infants dying				
.. .. unvaccinated	963	9.9	93	3.4
.. .. Infants who left the district	211	2.1	95	3.5
.. .. .. in hand ...	47	.4	62	2.3
.. .. .. in default ...	15	.1	—	—

A very cursory examination of this Table shows that Infant Vaccination in Ipswich has reached a stage at which, for all practical community purposes, the protection of the Infant population against the risks of Smallpox has been reduced to negligible proportions.

The conscientious objector has secured the prevention of the Vaccination of 75% of the Infant population.

In other words, the Vaccination Act of 1898 has reduced the compulsory powers of the Act of 1854 as amended by the Act of 1871 to an absurdity. Many other factors have contributed to this result.

When Vaccination was introduced in 1798 by Jenner, the Medical Profession knew as little about the way in which it acted as the general public. The public, however, were so terrified of Smallpox that they accepted the method.

The Government were so impressed with the dangers of Smallpox and the success of Vaccination that they provided it gratuitously in 1838 and made it compulsory in 1854.

The duty of administering the Vaccination Acts was vested in the Boards of Guardians—bodies totally unfitted to discharge health functions of that description. No only so, but the universal dislike of the Poor Law and all its works contributed not a little to the disadvantage of vaccination.

The Vaccination Act of 1871 made the appointment of Vaccination Officers compulsory. These officers were appointed by the Boards of Guardians, and it does not appear that they were required to furnish any evidence that they had any knowledge of Vaccination whatever. In spite of these handicaps, so great was the fear of Smallpox in the

minds of the people that only a small number of infants remained unvaccinated, as is evident in the Table at the beginning of this section.

It has been shown that the type of Smallpox in this locality changed about the middle of the eighties, and the disease practically disappeared. With the disappearance of the disease the driving force of fear was removed and this, together with the mild nature of the present form of the disease, has contributed still further to the abandonment of Vaccination.

The present position of Vaccination can therefore be ascribed to three main factors :—

- (1) The removal of the driving force of fear arising from the mild nature of the disease and its infrequency.
- (2) The widespread ignorance of what Vaccination is, and what it does.
- (3) The contempt into which the law has been brought by the Vaccination Act of 1898.

In my opinion the time has come for a drastic revision of the whole business. The whole of the law relating to compulsory Vaccination should be scrapped, and, in its place, local Authorities should be empowered to offer Vaccination and Re-vaccination, free to all desirous of taking advantage of this sure and certain means of the prevention of Smallpox.

Government Lymph should be available to all Local Authorities as required on the requisition of the Medical Officer of Health, on whose staff the Public Vaccinator and the Vaccination Officer should be.

In Ipswich, this position so far as the Vaccination Officers are concerned is now an accomplished fact.

This means the disappearance of payment by fees and placing the officers on a salary basis. This is a mere matter of adjustment.

The whole of the mass of forms now swamping the simple process of Vaccination should be swept away, and the procedures reduced to the simplest possible.

The propaganda with regard to the true meaning of Vaccination can be properly discharged by the Health Visitors, who are educated in the discharge of such duties, and who are in a position to approach parents with accurate knowledge in place of, in some cases, blank ignorance; in others, the even greater dangers of garbled, ill-informed and irresponsible personal opinions.

In my opinion the steps suggested would have the highly desirable effects of promoting the cause of Vaccination and contributing to economy.

## VENEREAL DISEASES.

REPORT RELATING TO ALL PERSONS WHO WERE TREATED AT THE TREATMENT CENTRE AT IPSWICH DURING THE YEAR ENDING DECEMBER 31st, 1931.

By Dr. F. Fowler Ward

(Medical Officer in Charge, Venereal Diseases Clinic).

The number of cases treated in 1931 were:—				Males.	Females.	Persons.
Gonorrhœa	...	...	...	103	34	137
Syphilis	...	...	...	78	70	148
Soft Chancre	...	...	...	3	—	3
Other conditions	...	...	...	56	27	83
Total 1931	...	...	...	240	131	371
" 1930	...	...	...	264	138	402
" 1929	...	...	...	275	138	413

The number of cases treated in 1931 shows a slight decrease on previous years, particularly in males.

The number of cases dealt with *for the first time* during the years 1929-1931 are given below classified according to residence:—

Year.	Ipswich.	East Suffolk.	West Suffolk.	Essex.	Total.
1929	136	83	3	17	239
1930	145	64	6	14	229
1931	129	63	2	16	210

The number of cases treated for the first time during 1931 also shows a slight decrease, more particularly in the Ipswich area.

## OUT-PATIENT ATTENDANCES.

(a) For individual attention by Medical Officer.

				Males.	Females.	Persons.
Gonorrhœa	...	...	...	1,034	241	1,275
Syphilis	...	...	...	549	452	1,001
Soft Chancre	...	...	...	10	—	10
Other conditions	...	...	...	75	31	106
Total 1931	...	...	...	1,668	724	2,392
" 1930	...	...	...	1,620	1,078	2,698
" 1929	...	...	...	1,661	774	2,435

Out-patient attendances by the Medical Officer again shows a slight decrease.

(b) For intermediate treatment.

		Males.	Females.	Persons.
Gonorrhœa	... ..	3,203	735	3,938
Total 1930	...	2,773	454	3,227
.. 1929	...	2,172	454	2,626

For intermediate treatment the numbers have increased very considerably, particularly in females, all of whom attend for Gonorrhœa.

This is encouraging, as the course of Gonorrhœa depends largely on regularity of treatment.

(c) Total.

		Males.	Females.	Persons.
Gonorrhœa	... ..	4,237	976	5,213
Syphilis	... ..	549	452	1,001
Soft Chancre	... ..	10	—	10
Other Conditions	...	75	31	106
Total 1931	...	4,871	1,459	6,330
.. 1930	...	4,393	1,532	5,925
.. 1929	...	3,833	1,230	5,063

The total attendances have increased, the value of which will be seen in the next paragraph.

Total number of attendances of all patients residing in each area :—

Ipswich	... 5,042	East Suffolk	... 1,053
West Suffolk	38	Essex	... 197

## IN-PATIENT DAYS.

Aggregate number of " In-patient days " of treatment :—

			Males.	Females.	Persons.
Syphilis	...	...	11	72	83
Gonorrhoea	...	...	12	88	100
Soft Chancre	...	...	15	—	15
Other conditions	...	...	—	55	55
Total 1931	...	...	38	215	253
.. 1930	...	...	135	70	205
.. 1929	...	...	118	190	308

Areas :—Ipswich 151, East Suffolk 61, West Suffolk—Essex 41.

The number of " In-patient days " for males is nearly a quarter of the number for the previous year; this indicates that few complications have supervened.

The number of " In-patient days " for females is, however, three times that of the previous year.

This does not mean more severe type of disease or complications, but that an effort is made to persuade female patients to take advantage of the existence of beds in hospital, whereby more efficient treatment can be given, and a cure more easily and early obtained.

## EXAMINATIONS OF PATHOLOGICAL MATERIAL.

(1) Specimens examined at Treatment Centre by Medical Officer :—

Spirochaetes 9, Gonococci 209.

(2) Specimens examined at an approved laboratory :—

Gonococci 129, for Wassermann Reactions 165.

The number of doses of Arsenobenzene compounds given in Out-patient Clinic and In-patient Department to patients residing in each area :—

Ipswich	...	197	East Suffolk	...	159
West Suffolk		6	Essex	...	68

Total 430, as compared with 299 in 1930.

(Signed) F. FOWLER WARD,  
Medical Officer in Charge of Centre.

## WATER SUPPLY

The following is the return of the approximate amounts of water supplied from the various sources during 1931 :—

	Gallons.
Total Water from Wells in Waterworks Street ...	344,445,000
Total Water from Wells at Whitton ...	439,020,000
Total Water from Gravitation Sources (Holywells) ...	17,000,000
Total Supply, all sources ...	800,465,000

	Gallons.
Supply per head per day, including Trades ...	25.5
"    "    "    "    "    1930 ...	25.00
"    "    "    "    "    1929 ...	25.61
"    "    "    "    "    1928 ...	27.17

I am indebted to Mr. E. McLauchlan, the Borough Engineer, for the figures.

The water is analysed at frequent intervals. No question has ever risen with regard to the purity of the Well Waters.

The Water from the remaining gravitation source (Holywells) is subject to the possibilities of pollution inherent in all such supplies.

## STREET CLEANSING AND COLLECTION AND DISPOSAL OF HOUSE REFUSE.

### CLEANSING SUPERINTENDENT'S REPORT.

All the Borough streets, with the exception of a few outlying ones, are swept at least once weekly. The principal streets, in the centre of the town, are swept each day, including Sundays, and additional attention is given by the use of seven scavenging handcarts which are constantly at work. Roadways of secondary importance are cleaned three times per week, and certain others of lesser importance, twice weekly.

The 3,200 gullies are cleaned out regularly, at periods varying from one to six weeks, according to their situation. This work is at present done by hand, but it is hoped, as soon as the financial situation permits, to instal a mechanical gulley-emptier.



One vehicle is employed in the collection of offal from slaughter-houses, which it delivers to the destructor.

House refuse is collected once weekly, except in the case of very congested areas, from which a bi-weekly collection is made. All the refuse is disposed of by incineration at the destructor, Portman Walk. During the year under review 12,952 tons of house refuse and 570 tons of offal and trade rubbish were dealt with, at an incineration cost of 6/10 per ton. House refuse collection costs work out at 12/- per ton.

The following Table gives the cost of collection and disposal (for the last three years for which Ministry of Health figures are available), and compares the Ipswich costs with those of 110 cities and boroughs.

IPSWICH.	Number of Houses.	Population	Weight per 1,000 population per day. cwts.	Net Expenditure per annum per ton.			Net Expendi- ture per 1,000 population per annum.			Net Expendi- ture per 1,000 houses per annum.			Rate in the £.
				Collection.	Disposal.	Total.	Collection.	Disposal.	Total.	Collection.	Disposal.	Total.	
s.	d.	s.	d.	s.	d.	£	£	£	£	£	£	d.	
1929-30	22986	85800	8.5	12 0	6 10	18 10*	91	52	143	339	193	532	6.72
1928-29	22404	85990	7.7	11 5	10 3	21 8	81	72	153	334	300	634	7.22
1927-28	21688	84140	7.7	12 2	10 3	22 5	86	72	158	360	305	665	7.49
Average for 110 cities and boroughs	—	—	16.7	9 1	4 2	13 3*	133	58	191	547	237	784	—

As nearly all new houses are being erected on the outskirts of the town, it is feared that there will in the future be a tendency for costs to go up. Every endeavour, however, is being made to meet this with increased efficiency.

H. PARISH,  
Cleansing Superintendent.

\*Net expenditure per ton is no true guide to relative costs. In the case of Ipswich the weight per 1,000 population per day is little more than half that of the average for 110 cities and boroughs, a circumstance to which several factors contribute. The real guide will be seen in the columns showing expenditure per 1,000 population and per 1,000 houses.



# CHIEF SANITARY INSPECTOR'S REPORT, 1931.

Inspector under Food and Drugs Acts, Inspector under Milk and Dairies Order, 1926, Inspector of Common Lodging Houses, Inspector under Shops Acts, Inspector under the Contagious Diseases (Animals) Acts, Inspector under the Fertiliser and Feeding Stuffs Act, 1926.

Analysis of Inspections.				1931
Private Houses	...	...	...	5,157
House to House	...	...	...	1,047
Houses let in Lodgings	...	...	...	80
Van Dwellings	...	...	...	310
Common Lodging Houses	...	...	...	149
Houses with reference to application for Council House	...	...	...	35
Damp Houses	...	...	...	61
Houses with defective eaves-troughing	...	...	...	86
Overcrowded Houses	...	...	...	19
Total Inspections of Housing conditions				6,944
Slaughter-houses	...	...	...	3,712
Butchers Shops	...	...	...	588
Cowsheds	...	...	...	137
Milk Retailers Premises	...	...	...	706
Bakehouses	...	...	...	375
Ice Cream Premises	...	...	...	59
Restaurant Kitchens	...	...	...	27
Cold Stores	...	...	...	36
Fried Fish Shops	...	...	...	401
Total Inspections with reference to Food				6,041
Rivers	...	...	...	24
Refuse Dumps	...	...	...	35
Visits after Infectious Disease	...	...	...	701
Shops	...	...	...	1,238
Factories, Workshops, &c.	...	...	...	168
Drains	...	...	...	391
Schools	...	...	...	12
Places of Entertainment	...	...	...	147
Urinals	...	...	...	288
Offensive Trade Premises	...	...	...	407
Stables	...	...	...	31
Piggeries	...	...	...	7
To Investigate Complaints	...	...	...	739
Smoke Nuisances	...	...	...	86
At Port	...	...	...	555
Dog Racing Tracks	...	...	...	7
Total of other Inspections				4,836
Total Inspections made during the year				17,821

## Analysis of Work Carried Out.

1931.

Drains inspected	...	...	391
Drains smoke tested	...	...	216
Drains water tested	...	...	207
Drains reconstructed	...	...	49
Drains unblocked and cleansed	...	...	68
New Drains and Houses connected to Sewer	...	...	4
Ventilating shafts provided	...	...	37
Ventilating shafts repaired	...	...	2
Gullies fixed	...	...	121
New sinks and wastes provided	...	...	70
Water-closet flushing apparatus repaired	...	...	38
Water-closets repaired	...	...	45
New water-closet pans provided	...	...	35
New water-closets provided	...	...	44
Foul water-closets cleansed	...	...	28
Inspection chambers provided	...	...	60
Inspection chambers repaired	...	...	36

Total Drainage works carried out	...	...	1451
----------------------------------	-----	-----	------

Roofs repaired	...	...	162
Eaves-gutters repaired	...	...	100
Rain Water Pipes repaired or renewed	...	...	57
Coppers repaired	...	...	55
Damp-proof courses inserted	...	...	25
Dampness otherwise remedied	...	...	6
Rooms Ventilated	...	...	80
Yards re-paved or yard pavings repaired	...	...	139
Wash-houses repaired	...	...	78
Sculleries concreted	...	...	80
Ash Bins provided	...	...	350
General Repairs to Houses	...	...	285
Chimneys repaired	...	...	5
Kitchen ranges repaired	...	...	2

Total works carried out to Houses	...	...	1424
-----------------------------------	-----	-----	------

Analysis of Work Carried Out— <i>continued.</i>			1931
Urinals repaired or cleansed	...	...	44
Water laid on to sinks	...	...	1
Water laid on to water-closets	...	...	45
Dirty houses cleansed	...	...	16
Pail closets abolished	..	...	2
Duckets abolished	...	...	10
Dead wells abolished	...	...	12
Premises limewashed	...	...	151
Removal of manure	...	...	17
Removal of animals	...	...	7
Total of other works carried out	...	...	305
Total works carried out during the year	...	...	3,180

## HOUSING.

### 1.—Unfit Dwelling-houses.

#### Inspection :—

- (1) Total number of dwelling-houses inspected for housing defects (under Public Health and Housing Acts) ... 6,204
- (2) Number of dwelling-houses which were inspected and recorded under the Housing (Consolidated) Regulations, 1925 ... 1,047
- (3) Number of re-visits ... 2,979
- (4) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ... —
- (5) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation ... 506

### 2.—Remedy of defects without service of formal notices :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers ... 443

## 3.—Action under Statutory Powers.

## A.—Proceedings under Section 3 of the Housing Act, 1925.

(1) Number of dwelling-houses in respect of which notices were served requiring repairs ... ..	nil.
(2) Number of dwelling-houses which were rendered fit after service of formal notice :—	
(a) By owners ... ..	nil.
(b) By Local Authority in default of owners ...	nil.
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close ... ..	nil.

## B.—Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied ...	10
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a) By owners ... ..	9
(b) By Local Authority in default of owners ...	nil.

## C.—Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925.

(1) Number of representations made with a view to the making of Closing Orders ... ..	nil.
(2) Number of dwelling-houses in respect of which Closing Orders were made ... ..	nil.
(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit ... ..	nil.
(4) Number of dwelling-houses in respect of which Demolition Orders were made ... ..	nil.
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders ... ..	nil.

## WATER SUPPLY.

Samples taken from Corporation Supply ... ..	24
Samples taken from Private Supply ... ..	2

## INFECTIOUS DISEASES.

Infectious diseases enquiries made ... ..	701
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						1931
<b>PROGRESS OF NOTICES.</b>						
<b>Preliminary.</b>						
Served	...	...	...	...	...	467
Completed	...	...	...	...	...	454
<b>Statutory.</b>						
Served	...	...	...	...	...	10
Completed	...	...	...	...	...	9
<b>Verbal.</b>						
Served	..	...	...	...	...	75
Completed	...	...	...	...	...	70
Letters Issued	...	...	...	...	...	409
<b>FACTORIES AND WORKSHOPS.</b>						
<b>Premises Inspected.</b>						
Factories	...	...	...	...	...	154
Outworkers	...	...	...	...	...	14
Bakehouses	...	...	...	...	...	375
<b>SHOPS' ACTS</b>						
Visits	...	...	...	...	...	1,238
New Shops Registered	...	...	...	...	...	34
Transfers	..	...	...	...	..	12

### SALE OF FOOD AND DRUGS.

The following Table shows the number of samples taken :—

Milk	...	...	...	70
Butter	...	...	...	49
Margarine	...	...	...	30
Coffee	...	...	...	5
Lard	...	...	...	6
Baking Powder	...	...	...	3
Vinegar	...	...	...	3
Tea	...	...	...	5
Milk (tins Machine Skimmed)	...	...	...	3
Jam	...	...	...	2
Potted Meat	...	...	...	2
Cream	...	...	...	2
Custard Powder	...	...	...	1
Cough Mixture	...	...	...	1
Preserving Powder	...	...	...	1

There were two prosecutions during the year, one case being dismissed and one milk vendor fined 40/-.

One milk vendor was cautioned.

## DISEASES OF ANIMALS ACTS, 1894-1895. TUBERCULOSIS ORDER, 1925.

This Order came into operation on 1st September, 1925.

Seven cows were sent in for slaughter by Veterinary Inspectors.

Five carcasses and all organs were condemned.

In one case the lungs and udder were condemned.

In one case the udder, liver and lungs were condemned.

## THE PUBLIC HEALTH MEAT REGULATIONS, 1924.

These regulations came into operation on the 1st April, 1925.

All shops now have fixed or movable windows to protect foodstuffs from dust and dirt, but it is found that on occasions a window is open. There has, however, been no occasion on which the meat was found to be dirty.

Days and Times of slaughtering of animals is given by butchers, and practically all meat is inspected before leaving the slaughter-house.

588 inspections of butchers' shops were made during the year 1931.

## SLAUGHTER-HOUSES.

There were fifteen private slaughter-houses in existence in the Borough during the year 1931.

3,712 visits were paid to slaughter-houses during 1931.

The number of carcasses examined during the year was :—

Cattle	...	...	4,914
Sheep	...	...	7,351
Pigs	...	...	14,425
Calves	...	...	408

The number of pigs examined before slaughter was 3,384.

## MILK AND DAIRIES ORDER, 1926.

This Order came into operation on 1st October, 1926, and a copy was forwarded to all Cowkeepers, Milk Purveyors and Retailers in the Borough.

Milk Retailers have been required to provide covered porcelain counter-pans for the storage of milk in shops.

No. of inspections of Dairies and Milkshops	...	402
No. of inspections of Purveyors of Milk	...	304
No. of inspections of Cowsheds	...	137



## FOOD INSPECTION.

The undermentioned foodstuffs were condemned as unfit for human consumption during the year 1931 :—

Carcases of beef	...	...	...	21
Forequarters of beef	...	...	...	5
Hindquarters of beef	...	...	...	1
Beasts' offals	...	...	...	2
Beasts' lungs	...	...	...	158
Beasts' livers	...	...	...	103
Beasts' mesenteries	...	...	...	70
Beasts' tripes	...	...	...	5
Beasts' tongues	...	...	...	33
Beasts' spleens	...	...	...	9
Beasts' heads	...	...	...	20
Beast's omentum	...	...	...	1
Beasts' skirts	...	...	...	3
Beasts' heads and tongues	...	...	...	103
Beasts' livers (lbs.)	...	...	...	13
Beast's diaphragm	...	...	...	1
Cows' udders	...	...	...	3
Beef (lbs.)	...	...	...	650
Beasts' kidneys	...	...	...	2
Beasts' hearts	...	...	...	2
Beast's intestines	...	...	...	1
Chilled beef (lbs.)	...	...	...	364
Chilled beef suet (lbs.)	...	...	...	12
Carcases of mutton	...	...	...	15
Forequarters of mutton	...	...	...	8
Hindquarters of mutton	...	...	...	2
Sheep's plucks	...	...	...	7
Sheep's mesenteries	...	...	...	1
Sheep's livers	...	...	...	1
Sheep's heads	...	...	...	4
Sheep's kidneys	...	...	...	1
Sides of mutton	...	...	...	1
Legs of mutton	...	...	...	1

Carcases of pork ...	...	...	...	239
†Pork (lbs.)	33 tons	17 cwts.	2 qrs.	16 lbs.
Pigs' heads ...	...	...	...	4,792
Pigs' kidneys ...	...	...	...	2,562
Plucks ...	...	...	...	1,643
Pigs' offals ..	..	...	...	479
Pigs' livers ...	...	...	...	745
Pigs' mesenteries ...	...	...	...	348
Pigs' hocks ...	...	...	...	203
Pigs' fore ends ...	...	...	...	68
Pigs' flecks ...	...	...	...	2
Pigs' lungs ...	...	...	...	13
Legs of pork ...	...	...	...	43
Pigs' tongues ...	...	...	...	16
Pigs' shoulders ...	...	...	...	6
Pigs' spleens ...	...	...	...	4
Sides of pork ...	...	...	...	1
Pigs' hearts ...	...	...	...	2
Carcases of veal	...	...	...	4
Calf's livers ...	...	...	...	1
Calf's pluck ...	...	...	...	1
Sides of veal ...	...	...	...	2
Forequarters of veal	...	...	...	1
Tinned Foods (lbs)	1 ton	17 cwts.	1 qr.	5lbs.
Tinned Foods (tins)	...	...	...	16
Chickens ...	...	...	...	5
Cheese (lbs.) ...	...	...	...	13 $\frac{3}{4}$
Plaice (stones) ...	...	...	...	3
Prawns (lbs.) ...	...	...	...	3
Skate (lbs.) ...	...	...	...	15
Potatoes (bags) ...	...	...	...	24
Frozen eggs (lbs.)	...	...	...	55
Mackerel (boxes)	...	...	...	1

†Includes 3,699 pigs' heads.

## RATS AND MICE DESTRUCTION ACT, 1919.

The number of Rats collected at the Public Health Offices during the period ended 30th September, 1931, was 9,555.

After this date the scheme was dropped, and no more rats were taken.

Visits to premises re rat destruction ...	...	21
---	-----	----

## DISINFECTION.

The undermentioned Table gives the number of rooms, articles of clothing, vehicles, etc., disinfected by this Department during 1931.

### Infectious diseases :—

Rooms ...	...	...	...	890
-----------	-----	-----	-----	-----

Bedding ...	...	...	...	8,691
-------------	-----	-----	-----	-------

### Tuberculosis :—

Rooms ...	...	...	...	113
-----------	-----	-----	-----	-----

Bedding ...	...	...	...	1,040
-------------	-----	-----	-----	-------

Articles from Isolation Hospital ...	...	...	11,203
--------------------------------------	-----	-----	--------

Ambulances ...	...	...	...	66
----------------	-----	-----	-----	----

Library Books ...	...	...	...	518
-------------------	-----	-----	-----	-----

Articles destroyed ...	...	...	...	61
------------------------	-----	-----	-----	----

Verminous rooms disinfected ...	...	...	100
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Articles of Scabies clothing ...	...	...	2,412
----------------------------------	-----	-----	-------

Scabies baths given ...	...	...	241
-------------------------	-----	-----	-----

Police cells ...	...	...	...	3
------------------	-----	-----	-----	---

Blankets from Open Air School ...	...	...	200
-----------------------------------	-----	-----	-----

Taxis ...	...	...	...	2
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## SANITARY CONDITIONS OF MUSIC HALLS AND CINEMAS.

In accordance with a suggestion contained in a letter circulated by the Ministry of Health, 147 visits were paid during performances to Music Halls and Cinemas in the Borough during 1931.

Special attention was paid to the ventilation of the Premises, and also to the condition and efficiency of the sanitary accommodation.

In every case the conditions were satisfactory

## MORTUARY.

During the year 1931, 35 bodies were admitted into the Mortuary.

In 20 cases Post-mortem Examinations were held.

# FACTORIES AND WORKSHOPS, 1931.

## 1.—Inspection of Factories and Workshops :—

Premises	Number of		
	Inspections.	Written Notices.	Prosecutions of Occupiers.
Factories ...	27	3	
Workshops ...	127	7	
Outworkers ...	14	-	
Workplaces ...			
Total ...	168	10	

## 2.—Defects found in Factories, Workshops and Workplaces, etc. :

Particulars.	Number of Defects.		
	Found.	Remedied.	Referred to H.M. Inspector.
Nuisances under the Public Health Acts :—			
Want of Cleanliness ..	3	3	
Want of Ventilation ...			
Overcrowding ...			
Want of Floor Drainage			
Other Nuisances ...	1	1	
Sanitary Accommodation			
(a) Insufficient ...	3	3	
(b) Unsuited or defective	2	1	
(c) Sexes not Separate ...	1	1	
Offences under the Factory and Workshop Acts :—			
Illegal Occupation of Underground Bakehouse	1	1	
Other Offences ...	2		2
TOTAL ...	13	10	2

## 3.—Outwork in Wholesale Premises, Section 108.

So far as Ipswich is concerned there is nothing to report under this heading.

# PORT OF IPSWICH SANITARY AUTHORITY. REPORT FOR 1931.

I.—Amount of Shipping entering the Port during the year 1931 :—

	No.	Tonnage.	No. Inspected		No. reported to be defective.	No. of vessels on which defects were remedied.	No. of vessels reported as having or having had during the voyage Infectious Disease on board.
			By the Medical Officer of Health.	By the Sanitary Inspector.			
Foreign {							
Steamers	158	145,899	—	30	1	—	—
* Motor ...	30	14,569	—	8	—	—	—
Sailing ...	—	—	—	—	—	—	—
Fishing ...	—	—	—	—	—	—	—
Total Foreign	188	160,468	—	38	1	—	—
Coastwise {							
Steamers	362	92,878	—	71	3	—	—
* Motor ...	338	40,478	—	—	—	—	—
Sailing ...	1,065	67,697	—	446	—	—	—
Fishing ...	—	—	—	—	—	—	—
Total Coastwise	1,765	201,053	—	517	3	—	—
Total Foreign and Coastwise	1,953	361,521	—	555	4	—	—

\* Includes mechanically propelled vessels other than steamers.

## II.—Character and Trade of Port :—

(a) Passenger Traffic during 1931—Nil.

(b) Cargo Traffic—Principal imports are grain, timber, phosphates and oil.

The principal ports from which vessels arrive are Germany, Russia, Finland and South America.

## III.—Source of Water Supply :—

(a) For the Port—Town Supply.

(b) For Shipping—Town Supply. Water boat from Harwich is used for vessels at deep water mooring berths at Buttermans Bay.

## IV.—Infectious Diseases :—

- (a) Vessels destined for this port upon which Infectious Disease is present on arrival off Harwich are boarded by the Medical Officer to the Harwich Port Sanitary Authority. Cases occurring after passing the Port of Harwich and previous to the vessels leaving here are dealt with in the same way as cases occurring in the Borough.

The Borough has its own Isolation Hospital, Motor Ambulance, Disinfecting Station, and Station for the Cleansing of persons.

- (b) Venereal Disease Clinic is held at the East Suffolk Hospital, Ipswich.

- (c) Bacteriological Examinations are carried out when required by the Bacteriologist to the East Suffolk County Council, County Hall, Ipswich.

There were no cases of Infectious Disease removed from vessels lying in the port.

There were no cases of Infectious Sickness occurring on vessels during voyage but disposed of prior to arrival.

## V.—Measures against Rodents :—

This is not an accredited Port for the purposes of Rat Destruction.

## VI.—Hygiene of Crews' Spaces :—

The following Table shows the classification of the defects and nuisances found in vessels :—

Nationality of Vessel.	No. Inspected during 1931.	Defects of original construction.	Structural defects through wear and tear.	Dirt, vermin and other conditions prejudicial to health.
British ...	25	—	2	1
Other Nations...	30	—	—	—

A. T. MEARS,

Chief Sanitary Inspector.







County Borough of Ipswich.

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School Medical Officer's  
REPORT

1931.



COUNTY BOROUGH OF IPSWICH  
EDUCATION COMMITTEE.

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ANNUAL REPORT

FOR 1931,

ON THE MEDICAL INSPECTION OF  
SCHOOL CHILDREN.

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*Medical Staff :*

A. M. N. PRINGLE, M.B., C.M. (EDIN.), D.P.H. (CAMB.).  
Medical Officer of Health and School Medical Officer.

A. W. GAYE, M.B., CH.B. (MANC.), M.B., B.C. (CAMB.), D.P.H. (CAMB.),  
Deputy Medical Officer of Health and Assistant School  
Medical Officer.

MRS. E. M. EDWARDS, M.R.C.S., L.R.C.P. (ENG.).

Assistant School Medical Officer (Part time),  
(Appointed 1/6/1931, vice Dr. D. E. P. Jolly).

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*Dental Staff :*

T. A. EDMONDSON, L.D.S., R.C.S., Eng.  
School Dental Surgeon.

A. W. T. WARD, L.D.S., R.C.S., Eng.  
Assistant School Dental Surgeon.

R. CUTHILL, L.D.S., R.C.S., Eng.  
Assistant School Dental Surgeon.

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*Nursing Staff :*

MISS M. SANDBACH, MISS F. ILETT, and part-time service of four of  
the Health Visitors of the Public Health Staff, as from 1/4/1931.

# County Borough of Ipswich.

PUBLIC HEALTH DEPARTMENT,  
ELM STREET,  
IPSWICH,

*April 1st, 1932.*

LADIES AND GENTLEMEN,

I have the honour to present to you the Report of the School Medical Officer for the year 1931.

I have pleasure in recording my appreciation of the services rendered by the members of the Staff of the School Medical Service during the year.

I remain, Ladies and Gentlemen,

Your obedient Servant,

A. M. N. PRINGLE,

*Medical Officer of Health.  
School Medical Officer.*

To the Chairman and Members  
of the Education Committee.

## INTRODUCTION.

Some changes took place in the working of the School Medical Service during the year 1931.

In the first place, the demands of the Maternity and Child Welfare Service and the Isolation Hospital rendered it necessary for Dr. D. E. P. Jolly to give her whole time to these services. In her place, Dr. E. M. Edwards was appointed to give half-time service to the School Medical Service, and she began her duties on June 1st, 1931.

In the second place, the reorganisation of the work of the Health Visitors enabled the work formerly carried out by Miss E. J. Taylor to be distributed amongst the Health Visitors. Up to date this has been found to work smoothly and efficiently, and in this relation I have come to the conclusion that specialisation by Nurses is a mistake so far as Public Health Work is concerned.

Special Reports by Dr. A. W. Gaye on the Britannia Road Special School and the Whitton Open Air School are included in this Report, as well as the usual Report by the School Dentist, which shows that at last the service has practically covered the whole Elementary School population.

Madame I. Stoton reports progress with the smaller classes for children suffering from defects of speech, and Mr. W. Tye again presents a full report on Physical Training.

## PUBLIC ELEMENTARY SCHOOLS AND SCHOOL POPULATION.

The following Table gives approximately the number of Public Elementary School Children in Ipswich :—

	1927	1928	1929	1930	1931
Number of Public Elementary Schools	26	26	27	26	26
Average Number of Children on School Registers ...	11,330	11,391	11,408	11,419	11,401
Average attendance of Children at School...	10,237	10,369	10,162	10,190	10,174



## ROUTINE MEDICAL INSPECTION.

The number of children examined at Routine Medical Inspection since 1927 is shown as follows:—

Group.			1927.	1928.	1929.	1930.	1931.
Entrants	...	...	1,447	1,309	1,155	1,227	887
Intermediates	...	...	675	1,496	1,503	1,406	1,272
Leavers	...	...	1,279	1,299	986	926	940
Total			3,401	4,104	3,644	3,559	3,099

The number of children examined during 1931 was below the average of the previous five years, the decrease being due to a shortage of staff for some months during the first half of the year.

## SPECIAL INSPECTIONS.

The appended Table furnishes particulars with reference to the attendance of children at the Inspection Clinic, together with the number of exclusions granted:—

Period.	Numbers of Children attending at Clinic.	Total Attendances at Clinic.	Exclusions Granted.	Cases in which no exclusion was necessary.	No. of exclusions as result of home visiting by nurses.	Total Exclusions.
Average	—	4,568	1,004	—	—	1,004
1912-15	—	6,611	1,525	325	1,180	2,705
1916-20	1,850	10,726	1,930	555	1,590	3,520
1921-25	2,846	13,189	2,520	1,673	2,042	4,562
1926-30	4,193	12,147	2,168	1,020	1,332	3,500
1926	3,188	13,924	2,485	1,358	1,193	3,678
1927	3,843	13,539	2,580	1,941	2,728	5,308
1928	4,521	13,667	2,858	1,956	2,400	5,258
1929	4,814	12,667	2,509	2,091	2,558	5,067
1930	4,600	12,148	2,239	2,429	1,749	3,988
1931	4,668					

The number of attendances remains high, but there is a definite decrease in the percentage of exclusions found necessary.

## EXCLUSION OF SCHOOL CHILDREN,

including cases excluded at the School Clinic and by the Health Visitors as a result of home visits.

Disease or Defect.	Cases Exclud- ed.	Total days of ex- clusion.	Max. days of ex- clusion.	Min. days of ex- clusion.	Average No. of days.	Cases Brought over from 1930.	Cases Still Out- stand- ing.
AT SCHOOL CLINIC:—							
Tonsillitis, Diphtheria, Sore Throats, etc. ...	356	6030	200	1	17	13	13
Debility ...	209	3804	261	1	18	13	8
Impetigo ...	172	2267	70	1	13	9	16
Verminous Conditions ...	129	1460	36	1	11	—	5
External Eye Disorders	106	1811	225	1	17	3	5
Otorrhœa ...	68	1767	193	1	25	2	4
Tuberculosis:—							
Pulmonary ...	62	1090	163	4	18	13	9
Other Forms ...	44	2899	280	3	66	7	12
Whooping Cough ...	60	2574	105	1	42	2	11
Scabies ...	35	982	76	2	28	1	3
Anæmia & Heart ...	30	1616	303	7	54	9	6
Bronchitis ...	29	1109	365	7	38	1	2
Influenza ...	15	169	35	3	11	—	1
Ringworm:—							
Scalp ...	7	641	317	12	91	6	—
Skin ...	4	22	9	1	5	—	—
Mumps ...	1	59	59	—	59	—	—
Other Ailments ...	912	13425	365	1	15	20	39
TOTAL ...	2239	42725	365	1	19	99	134
BY HEALTH VISITORS:—							
Chicken Pox, etc. ...	503						
Whooping Cough ...	414						
Measles ...	252						
Other Infectious Diseases ...	60						
Tonsillitis, Coughs, Influenza, etc. ...	343						
Impetigo, Sores, etc. ...	20						
Minor Injuries ...	11						
Other Ailments ...	146						
TOTAL ...	1749						
GRAND TOTAL ...	3988						

There is a decided decrease under the heading of Tonsillitis and Diphtheria compared with 1930. The total amount of exclusion necessary

for Pulmonary Tuberculosis is only one quarter, and that for Ringworm of the scalp nearly one-sixth of last year's figures. Infectious Diseases have again accounted for a considerable amount of absence from school.

The following Table compares EXCLUSION FIGURES for 1931 with those of past years. Exclusions as a result of home visits are not included in this Table :—

Year.	Cases Excluded.	Total Days of Exclusion.	Average No. of Days.
Average.			
1921—25	1,930	68,198	40
1926—30	2,526	63,515	25
1926	2,168	60,207	28
1927	2,485	70,222	28
1928	2,580	63,975	25
1929	2,858	66,550	23
1930	2,509	56,613	22
1931	2,239	42,725	19

The figures in each column indicate a considerable decrease as compared with the average of the previous five years.

### EXCLUSIONS FOR RINGWORM.

The following Table illustrates the Ringworm experience since 1911 :—

Period.	No. of Cases Excluded.			Average No. of Days Lost	
	Scalp.	Skin.	Total.	Scalp.	Skin.
Average.					
1911—1915	54	39	89	75*	28*
1916—1920	205	58	263	79	12
1921—1925	148	7	155	107	12
1926—1930	45	9	54	138	15
1926	53	8	61	112	14
1927	78	14	92	150	12
1928	48	7	55	116	10
1929	23	6	29	147	10
1930	21	12	33	164	31
1931	7	4	11	91	5

\* Average of 1913, 1914 and 1915 only.

This Table shows a remarkable and definite decrease in the incidence of Ringworm of the scalp, which now stands at the lowest point ever recorded.

## TREATMENT CLINIC.

The following Table shows the number of children who were treated at the Treatment Clinic during the last few years, together with the total number of visits paid by them :—

Year.	Number of Children Treated.	Total Visits Paid.
Average.		
1921—25	277	2,901
1926—30	715	3,339
1926	377	3,277
1927	665	4,068
1928	866	3,730
1929	835	3,316
1930	834	2,306
1931	912	3,692

This Table indicates that the Clinic is being used to a greater extent than formerly, and the increase is very apparent since 1928.

The appended Table gives the particular diseases or defects dealt with at the Treatment Clinic :—

Disease or Defect.	1927.	1928.	1929.	1930.	1931
Ringworm :—					
Scalp ...	36	8	10	8	1
Skin ...	7	9	4	3	2
Scabies ...	9	8	8	34	28
Impetigo ...	75	76	94	44	111
Other Skin Diseases ...	148	229	171	159	217
Minor Eye Defects ...	91	110	124	110	116
Minor Ear Defects ...	7	4	6	4	13
Nose and Throat ...	46	46	28	25	13
Minor Injuries ...	246	129	216	285	255
Miscellaneous ...		247	174	162	156
Total ...	665	866	835	834	912

It will be seen from the above that the number of skin affections treated during 1931 was far greater than in any of the previous years, although Ringworm cases showed a striking diminution.

## MENTALLY DEFECTIVE CHILDREN.

80 children were examined under this heading during 1931, and in addition 10 cases were re-examined.

The results of the examinations were as follows:—

Classified as:—	Males	Females.	Total.
Feeble Minded M.D. ..	16	20	36
Imbeciles .. ..	5	1	6
Idiots .. ..	—	—	—
Total Certified	21	21	42

Of the remainder, 19 were "Dull and Backward," 11 "Backward," and 8 "Normal."

The following Table compares the figures of 1931 with those of the previous ten years:—

Year.	CLASSIFICATION.														
	Feeble-Minded.			Imbeciles.			Idiots.			Dull and Backward.			Total		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Average															
1921-1925	18	11	29	2	4	6	—	—	—	20	12	32	40	27	67
1926-1930	10	10	20	4	3	7	—	—	—	13	14	27	27	27	54
1926	11	8	19	6	5	11	—	—	—	18	22	40	35	35	70
1927	10	17	27	5	2	7	—	—	—	15	15	30	30	34	64
1928	8	6	14	3	1	4	1	—	1	6	12	18	18	19	37
1929	11	13	24	1	6	7	—	—	—	15	6	21	27	25	52
1930	11	6	17	5	2	7	—	1	1	10	13	23	26	22	48
1931	16	20	36	5	1	6	—	—	—	13	6	19	34	27	61

Considerably more children in this category were examined than in recent years, and an increased number of defectives was found. Of the ten children re-examined, 2 were certified feeble-minded, one already certified mentally defective was recertified as an imbecile, and the remainder "dull and backward."

## BRITANNIA ROAD SPECIAL SCHOOL.

13 girls and 16 boys were admitted to the School, making the numbers in attendance at the end of the year 85, being 42 girls and 43 boys.

3 girls and 8 boys left, having attained the age of 16 years. In addition, one girl and one boy left the town and 6 boys were discharged, 3 as not further educable and 3 owing to antisocial tendencies.

Work during the year has again progressed smoothly and satisfactorily.

Attendance has been good, not dropping below 75 per cent. and rising to 94 per cent. This compares very favourably with attendance at the ordinary Elementary Schools, especially when it is remembered that many of these children have also poor physical health—a condition one expects to find among them more frequently than among the mentally normal school population.

Occasional Country Dance Parties have been held after school hours, by kind permission of the Education Committee. These have afforded a useful opportunity of studying the children apart from school routine.

It may be of interest to give a few figures concerning the children viewed from a psychological rather than educational standpoint:—

61 children were admitted in the first year of the School's existence. Their average chronological age was 11.1, and their average mental age 6.11. If we leave out 14 children who remained in the school two years or less, there remain 47 with an average age of 10.9 and average mental age 6.10. After a period of 3-4 years, when the average age would be 13½-14, the average mental age works out at 8.8. So that so far as these 47 are concerned, there has been an average gain of 1 year and 10 months, that is to say, a yearly gain of about 5 months. These figures must be taken as approximate, but they are sufficient to show that definite progress is made and it is unlikely that the same amount would have been obtained had the children remained in the ordinary schools. The highest mental age usually attained is 9-10 years, and lower grades less than this. I can only quote one instance of a mental age of 10½ being reached.

The children gave their usual Christmas Entertainment, which was extremely well attended by parents.

This success and the success of the School generally is due to the assiduity and patience of the teaching staff in making the most of the material with which they have to deal.

(Signed) A. W. GAYE,

Deputy Medical Officer of Health and  
Assistant School Medical Officer.



## PEDICULOSIS AND UNCLEANLY CONDITIONS.

Number of examinations	...	...	...	...	21,216
Number of individual children found to have nits or vermin	...	...	...	...	184
Number excluded from School	...	...	...	...	129
Number of "24-hours' Notices" served	...	...	...	...	33
Number of children cleansed by parents after receipt of "24-hours' Notices"	...	...	...	...	19
Number of children whose hair was cut or whose heads were cleansed by the Local Authority	...	...	...	...	14
Number of baths given to children	...	...	...	...	271
Cases reported to the N.S.P.C.C. for wilful neglect	...	...	...	...	nil.
Prosecutions	...	...	...	...	nil.

The number of examinations carried out during the year in this connection was less than in the previous year but above the average of the last five years (18,689).

The remaining figures in the Table are in accordance with the usual experience.

The baths were given in practically all cases for scabies.

## EMPLOYMENT OF SCHOOL CHILDREN.

169 children were examined during 1931, necessitating a total of 193 examinations, under the Employment of Children Act, 1903, as amended by the Education Act of 1921.

Sex.	Physical Condition Satisfactory	Passed after re-examination.	Certificate Refused.	Re-examinations carried out.	Total Exams.
Male	129	30	7	24	190
Female	1	—	—	—	1
Street Traders	2	—	—	—	2
TOTAL	132	30	7	24	193

The number of children examined in 1931, under this heading, was not so great as last year.

## TUBERCULOSIS DISPENSARY.

The session devoted to the examination of school children during 1931 was Friday afternoon, the Tuesday session having been dropped.

So far as Institutional Treatment of Tuberculosis is concerned the following School Children were admitted to the Institutions named :—

INSTITUTION	Boys.	Girls.	Total.
Ipswich Sanatorium ... ..	22	9	31
East Suffolk & Ipswich Hospital (for treatment of Surgical Tuberculosis)	4	4	8
Ipswich Isolation Hospital—			
(a) Pulmonary Tuberculosis ... ..	—	—	—
(b) Surgical Tuberculosis ... ..	1	1	2
TOTAL ... ..	27	14	41

## EYE CLINIC.

The Summary for the year is given below :—

Number of cases examined	...	...	...	361
Number of visits paid	...	...	...	623
Glasses prescribed	...	...	...	177
,, changed	...	...	...	82
,, unchanged	...	...	...	15
No treatment necessary	...	...	...	81
Treatment required (other than the provision of Glasses)				3
Glasses obtained	...	...	...	251

The following defects were found :—

Hypermetropia	...	...	...	49
Hypermetropic Astigmatism	...	...	...	41
Myopia	...	...	...	2
Myopic Astigmatism	...	...	...	18
Mixed Astigmatism	...	...	...	4
Squint	...	...	...	25
All others	...	...	...	14

In connection with the Eye Clinic, the following Table is of interest :

Period.	Number of Children Examined.	Percentage for whom Glasses were prescribed (or changed).	Percentage who obtained (or changed) Glasses.
Average			
1921—1925	330	57	81
1926—1930	372	69	95
1926	312	60	95
1927	415	71	96
1928	442	71	92
1929	351	71	98
1930	339	73	96
1931	361	72	96

There is noticeable a marked decrease in the number of cases found to require glasses for short sight.

### WHITTON OPEN AIR SCHOOL.

This School, which is now in its second year of existence, has amply proved its value in assisting children to regain their health. On examination in the early part of the year, 60 children were recommended for discharge at Easter, and their places were filled in some cases by children younger than the original admissions. From the effect produced in a year or eighteen months, I strongly advocate admission at 8 years when possible, and in certain selected cases it would be advantageous at 7 years of age.

Attendance was 86.9 for boys and 84.4 for girls—not quite so good as in the previous 9 months, but still very creditable for delicate children.

A lot of energy and time has been spent in beautifying the grounds and the production of vegetables for the school kitchen, under the able tuition of Mr. N. S. Overfield.

Miss E. K. Baldwin has carried out first-aid work and treatment for minor ailments, thus helping to avoid absence from school for treatment.

The "Open Day" at the School in the Summer was much appreciated by parents. They attended in large numbers and saw the complete routine, including the cooking and serving of dinner, finally being entertained by the children in the last hour. In addition, the School Staff were glad to have this opportunity of meeting mothers and hearing their expressions of grateful appreciation.

During the first year 57 girls and 53 boys were admitted, and they may be classified as suffering from the following diseases :—

	Admissions 1930.	1931 Discharges.
Quiescent Tuberculous Disease ...	25	13
Pretubercular ...	13	9
Subnormal nutrition ...	38	30
Anæmia ...	9	5
General delicacy ...	16	13
Other diseases ...	9	5

In the second year, there were 75 discharges (mainly at Easter, 1931), and the second column above gives their classification under the same headings. This classification is of course not exhaustive, many of the cases might be placed under two or more headings, but so far as possible the main defect has been taken for this purpose.

We see that the majority are suffering from the effects of Tuberculous or suspected Tuberculous disease and subnormal nutrition. Of the 38 latter all but 8 were discharged, but of the former (also 38) only 22 were deemed fit for discharge in a year's time. This goes to show what a marked effect the fresh air, sunshine and a good meal has upon children who have unfortunately been suffering from lack of them. Though the effect upon Tubercular and Pretubercular cases is slower, nevertheless it will be found just as marked in the end. These conclusions are also supported by the figures showing the gain in weight of the children while at the School.

I wish to thank the Headmistress, Miss E. M. Jackson, for help in the compilation of this report, and also her staff. Their untiring efforts materially contribute to the welfare of the children.

A. W. GAYE,

Deputy Medical Officer of Health,  
School Medical Officer.

### OGILVIE HOME.

Five children (3 boys and 2 girls) were in the Home at the beginning of the year.

The admissions to the Home during 1931 included 4 boys and 3 girls; 3 boys and 3 girls were discharged, and 1 boy was withdrawn by parents.

There were, therefore, 5 children (3 boys and 2 girls) in the Home at the end of the year.

Arrangements were in hand to fill the one vacancy.

The children admitted are usually suffering from general delicacy rather than a disease of any particular system, and the benefit obtained is usually well marked.

## TONSILS AND ADENOIDS.

The following Table gives particulars of the work carried out under this heading during 1931, as compared with the experience of the preceding ten years.

		Average 1921— 1925.	Average 1926— 1930.	1927.	1928.	1929.	1930	1931.
No. of Children referred to East Suffolk and Ipswich Hospital ...		173	151	142	137	133	148	113
Percentage who attended Hospital ...		82%	84%	91%	84%	86%	72%	70%
Percentage of the cases attending Hospital who received operative treatment ...		81%	80%	85%	90%	68%	95%	88%
Total attendances (Out-Patients) ...		262	231	218	207	244	188	158
Operations ...		102	103	110	109	110	109	89
In-Patient Days	Over 10	33	39	91	33	17	—	5
	Under 10	69	63	71	29	27	25	—

The Table shows a steady decrease in the number of children requiring to be referred for examination and treatment for enlarged tonsils and adenoids. The number discovered varies considerably from school to school, as also the attitude of parents towards accepting the advice offered.

## STAMMERERS.

I append Madame Stoton's report :—

Report for 1931.

A total of twenty-six children (twenty boys and six girls) attended the stammerers' classes during the year 1931. The number of children on the register at the end of the year was sixteen (thirteen boys and three girls), that being about the average at any one time throughout the year. The cases under treatment included various types of stammering, defective speech, and one case each of cleft palate and tongue-tie.

For the first two terms the work was carried out at two centres (London Road and St. Helen's) with two classes, each having two hourly lessons a week. During the last term the arrangement was to work with four smaller classes, each having two hourly lessons a week, and to use a third centre (Clifford Road). That arrangement

was the result of the desire of the Education Committee to carry out the suggestion which I made last year to limit each class, where practicable, to not more than four pupils.

The children who were transferred to my classes at the beginning of the year evidently found the methods being used new to them, and so a certain amount of time was taken up in getting them used to doing breathing and tongue exercises. During the third term, working with the smaller classes, it was easier to give more of the individual attention which is so necessary with this work.

In cases where the children were decidedly dull and backward the progress made was slow. A considerable amount of work is necessary to produce a small result in such cases, but still a result can be obtained. There was, again, a marked improvement with the younger children, even with very bad defective speech. Early treatment of defective speech no doubt prevents more serious trouble, such as stammering later, and it would appear that the greatest good is done for a given amount of instruction if it is applied early in the course of defective speech. In some cases the children concerned are dull and backward, and at a later age the lower mentality shows itself by more stupid behaviour as well as slowness and inability to concentrate, and the anticipated greater intelligence and realisation of the handicap of defective speech does not appear.

I have heard of several of the boys who stammer having obtained better marks for their reading in the school examinations, and also that the Head Masters of some have remarked on the improvement in their speech.

(Signed) ISMAY STOTON.

I am of opinion that something further might be done for children in the Infant Schools who have speech defects, but it would not be advisable to teach them with stammerers. Doubtless most of these children overcome the defect in time, but it can be hastened with considerable advantage in general progress.

## PHYSICAL TRAINING.

I have pleasure in appending the Report of Mr. Tye, the Organiser of Physical Training:—

Looking back over the past three years, there has been noticeable improvement in the physical training of most of the borough schools, apparent both in the teaching of, and the general attitude of the teachers towards the subject. A higher standard of teaching has resulted from the classes arranged for the training of the teachers, and these have proved the most encouraging aspect of the work. The majority of head teachers are interested in physical training as a necessary and valuable part of the school curriculum, the result of this interest being improved



time-tables, giving more frequent periods for exercise. Other indications of improvements are :—

- (1) More systematic visits to the playing fields, and increased playing field facilities.
- (2) An increased number of children desiring to receive instruction in swimming.
- (3) A wider introduction of folk dancing into the girls' and junior schools.
- (4) A general improvement in athletic ability, as shewn in the Borough's success in winning the championship of the County sports.

#### TEACHERS' CLASSES.

Two very successful teachers' classes were held by Miss W. M. Saunders for women teachers of junior schools. Those classes were well attended, and have done much to raise the standard of teaching in the schools.

During the last three years, the teachers in the Borough have attended courses which have dealt with general elementary work for all departments. A temporary cessation of classes at the moment seems advisable in order to give the teachers time to consolidate their training and to receive individual help, especially in view of the great changes which have taken place recently in the staffing arrangements, nine schools and approximately sixty teachers being affected.

It is anticipated that the Board will shortly make some announcement regarding physical training in the senior schools. The organisers, upon receiving this, will be able to put forward suggestions for the provision of training certain teachers for these schools. This applies particularly to the Central Schools.

#### SPECIALISATION.

In the majority of schools physical exercises are taken by the class teacher. In a few senior schools a certain amount of specialisation is organised on a small scale. The best results will not be obtained from specialisation until the best teachers of physical training in the Borough are placed in posts which give scope for the specialist. It is hoped that in the future, when these teachers get the opportunity of further training, it will be found possible to develop specialisation on a more profitable scale.

#### SWIMMING.

The organisation continues as in previous years. This season 277 scholars obtained a 45 yards certificate, and 209 scholars obtained a 25 yards certificate. There is an increasing demand in the schools for more advanced instruction. It is hoped that this will be available when the necessity for economy is less pressing.



## PLAYING FIELDS.

The use of the Britannia and Priory Heath fields is keenly appreciated, both by teachers and scholars. The head teachers are making good use of the fields, and the classes attend regularly. A third playing field is in process of preparation in the neighbourhood of Wherstead Road, which should be in sufficiently good condition to use in the New Year. A small piece of land, approximately 200ft. x 100ft., is being prepared on the Gainsborough School site for use of their older children. The total acreage now in use by Elementary Schools is 14 acres, and eleven schools are attending these playing fields. Eight schools are still using the parks for games. These schools, however, will resort to other fields belonging to the Committee as soon as they can be conveniently prepared. With the expansion of playing field facilities, it is becoming increasingly necessary for specialisation in games on the senior school staffs, so that generally speaking the younger and more suitable teachers may have entire charge of the games. With this in view, it is hoped that games courses can be arranged in the summer term, giving instruction in general organisation and coaching.

## ACCOMMODATION.

The physical training in schools with central halls is generally more efficient than those with no inside accommodation. It is hoped that eventually every school will be provided with suitable facility, and that it will not be necessary to utilise any existing central halls for classrooms, as is taking place at the moment in the case of Springfield, Britannia Road, and Wherstead Road Schools.

## SCHOOLS SPORTS' ASSOCIATION.

Mr. C. V. Spall reports that the Association experienced another successful year in all branches of its activities. Nine schools entered the Football League. Nacton Road Boys' School won the shield and medals, which are given by the Ipswich teachers.

A league for younger boys has been formed. This arrangement is all to the good, as it will bring in a larger number of players. There is a difficulty, however, at present in finding sufficient men teachers to supervise these games.

The Ipswich Schools' football team reached the third round in the English Schools' competition.

During the summer the schools played their usual cricket matches. The Nacton Road boys were again successful in winning the trophy.

The annual swimming festival was again very successful. Eighteen schools sent competitors, who showed a keen enthusiasm. The style was not up to the usual standard: this was mainly due to a very poor season. Springfield School again won the boys' shield, while the girls' trophy went to Ranelagh Road and Wherstead Road Schools, who tied for points.

Netball is becoming increasingly popular with the girls' schools. A representative team played home and away matches with Lowestoft,

Norwich and Cambridge. The expense of this was borne entirely by the teaching staffs of the schools. St. Helen's School won the netball cup.

#### ATHLETICS.

Twenty-one schools competed at the annual sports. The representative team selected on this day won the County championship, although by a very narrow margin. The teachers are very grateful to the Committee for their annual grant towards general expenses.

(Signed) W. TYE,

Organiser Physical Training.

### HIGHER EDUCATION.

#### IPSWICH SCHOOL.

Four visits were paid to this School for Routine Medical Inspection during 1931.

Term.	Boys Examined.	No of Defects Found.	No. of Re-Examinations.
Spring	8	7	26
Summer	8	13	12
Autumn	34	28	17
TOTAL	50	48	55

The defects found are as under :—

For Treatment.		
Dental ...	...	15
Vision ...	...	2
Deformities ...	...	3
Malnutrition ...	...	1
Enlarged Tonsils ...	...	1
Suspected Tuberculosis		1

Total ... 23

For Observation.		
Tonsils ...	...	3
Enlarged Glands ...	...	2
Malnutrition ...	...	1
Heart disease (functional) ...	...	1
Vision ...	...	1
Pulmonary ...	...	1
Deformities ...	...	1
Other Defects ...	...	13
Other Conditions (Nose and Throat)		2

Total ... 25

## NORTHGATE SCHOOL FOR BOYS.

Routine Medical Inspection, "Following Up" and "Sports" examinations occasioned 9 visits to this School during 1931.

Term.	Boys Examined.	No. of Defects Found.	No. of Re-Examinations.
Spring	77	48	76*
Summer	69	30	44
Autumn	72	32	32
TOTAL	218	110	152

\* Includes 43 boys seen as to fitness for sports.

All boys of this School are examined on or before admission and in addition when they are 12 and 15 years old, and before leaving School.

The defects observed are shown as under :—

For Treatment.		For Observation.	
Dental ...	21	Enlarged Glands ...	9
Vision ...	10	Malnutrition ...	11
Malnutrition ...	3	Enlarged Tonsils and	
Skin ...	1	Adenoids ...	11
Deformities ...	7	Skin ...	6
Other Defects ...	2	Vision ...	1
Uncleanliness ...	1	Other Defect, Eyes	1
Enlarged Tonsils ...	2	Deformities ...	4
Bronchitis ...	1	Defective Speech ...	2
Suspected Pulmonary		Anæmia... ..	1
Tuberculosis ...	1	Heart Disease	
		(functional) ...	1
		Other Defects ...	8
		Uncleanliness ...	1
		Bronchitis ...	1
		Other Disease, lungs	1
		Suspected Pulmonary	
		Tuberculosis ...	3
Total ...	49	Total ...	61

## NORTHGATE SCHOOL FOR GIRLS.

Six visits were paid to this School during the year.

Term	Girls Examined.	No. of Defects Found.	No. of Re-Examinations.
Spring	63	26	24
Summer	43	14	19
Autumn	49	29	20
TOTAL	155	69	63

The defects were distributed as follows :—

For Treatment.		For Observation.	
Dental ...	7	Defective Vision ...	4
Defective Vision ...	11	Enlarged Glands ...	1
Deformities ...	7	Defective Hearing ...	1
Enlarged Tonsils and Adenoids ...	1	Heart Disease (functional) ...	1
Skin ...	1	Deformities ...	4
Other Defects ...	7	Nervous Disorders...	1
Malnutrition ...	1	Other Defects ...	4
Defective Hearing...	1	O.D. Ear ...	1
O. D. Nervous System ...	1	Enlarged Tonsils and Adenoids ...	11
		O.D. Lungs ...	4
Total ...	37	Total ...	32

## REPORT ON THE WORK OF THE SCHOOL DENTAL DEPARTMENT FOR THE YEAR 1931.

### ROUTINE WORK.

During the year 28 Elementary and the Northgate School for Boys were visited. The number of Departments visited was 44, viz. :— Infants 12, Girls 9, Boys 11, Mixed 4 and Junior 8. Cavendish Street School was visited twice.

The teeth of 9,637 children were examined, 7,767 re-inspections and 1,870 first inspections. The following Table gives details of ages :—

TABLE A.

Year of Inspection.	Ages of Children—Routine.											Total.		
	5	6	7	8	9	10	11	12	13	14	15	Routine.	Non-Routine.	Total Inspected
1920	2156		247		—		—	—						
1921	619	554	607	331	1	—	—	—	—	—	—	2403	1211	3614
1922	522	670	527	525	301	4	—	—	—	—	—	2112	973	3085
1923	1086	1430	1347	1432	1370	558	158	—	—	—	—	2549	725	3274
1924	839	954	1048	1071	1200	1205	915	—	—	—	—	7381	584	7929
1925	1060	788	786	946	969	1064	1148	567	—	—	—	7232	386	7618
1926	1206	1416	910	759	931	879	975	920	543	—	—	7328	273	7601
1927	877	906	1068	638	571	616	672	773	850	239	—	8539	90	8629
1928	711	760	813	954	679	658	642	768	781	245	—	7210	15	7225
1929	657	623	714	777	792	535	526	591	483	198	93	7011	3	7014
1930	805	861	921	960	1086	1079	643	586	690	273	164	5989	—	5989
1931	891	1010	1081	1075	1167	1249	1101	846	752	340	125	8068	—	8068
												9637	—	9637

Of the total number inspected only 1,284, or 13.32 per cent., had every tooth perfectly sound, whilst 37.54 per cent. had mouths containing 10,086 septic teeth, an average of 2.78 each, as witness the following Table :—

TABLE B.

Year.	Percentage of Children having septic teeth.	Average number of septic teeth per child.	Percentage having "All-sound" teeth.
1921	68.46	2.29	—
1922	63.65	3.14	—
1923	53.00	3.11	—
1924	51.49	2.69	—
1925	44.25	2.65	—
1926	39.81	2.81	—
1927	38.15	2.81	11.22
1928	37.51	2.95	9.44
1929	43.58	3.11	10.47
1930	46.39	3.18	10.29
1931	37.54	2.78	13.32

Of the total number inspected only 3,334, or 34.59 per cent., had all the permanent teeth present in the mouth perfectly sound, whilst 4,429, or 45.95 per cent. had decayed permanent teeth which were savable.

The following comparative Table gives the necessary details :—

TABLE C.

Children having one or more permanent teeth decayed savable :—

Year.	Number of Permanent Teeth Decayed Savable.												Total No. of Children.	Total No. of Decayed Perm. teeth savable.	Percentage of children.
	1	2	3	4	5	6	7	8	9	10	12	15			
1921	1 or more 464	—	—	—	—	—	—	—	—	—	—	—	464	464	21.96
1922	413	346	94	41	1	—	—	—	—	—	—	—	895	1,556	35.11
1923	968	1,020	306	232	7	1	—	—	—	—	—	—	2,534	4,895	34.33
1924	1,298	1,124	417	269	17	2	3	—	—	—	—	—	3,130	5,991	43.27
1925	1,118	1,208	456	319	30	12	1	1	—	—	—	—	3,145	6,415	42.91
1926	1,107	1,356	499	375	37	18	9	4	—	1	—	—	3,406	7,214	39.87
1927	1,106	1,331	465	325	57	28	7	4	1	—	—	—	3,324	7,006	46.10
1928	1,006	1,106	462	332	55	16	7	4	—	—	—	—	2,988	6,384	42.61
1929	798	884	367	247	34	14	2	—	—	—	—	—	2,346	4,923	39.17
1930	1,185	1,240	580	512	68	31	15	5	1	2	1	1	3,641	8,180	45.12
1931	1,441	1,450	714	643	103	44	15	11	7	1	—	—	4,429	10,100	45.95

4,900 permanent teeth filled in previous years were found artificially sound.

Tables D. and E. give details regarding children selected for treatment.

TABLE D.

Year.	Children Inspected.	Selected for Treatment.	Percentage Selected.
1920	2,403	1,772	73.70
1921	2,112	1,655	78.30
1922	2,549	1,930	75.70
1923	7,381	4,939	66.90
1924	7,232	5,186	71.70
1925	7,328	4,898	66.80
1926	8,539	5,428	63.56
1927	7,210	4,888	67.79
1928	7,011	4,702	67.06
1929	5,989	4,160	69.46
1930	8,068	5,982	74.14
1931	9,637	6,761	70.15

TABLE E.

Year.	Selected for Treatment.	Extractions only.	Fillings only.	Fillings and Extractions.	Dressings only.
1920	1,772	51.52	17.15	28.44	2.8
1921	1,655	60.33	10.21	28.81	.1
1922	1,930	52.17	13.26	34.19	.3
1923	4,939	49.86	17.55	32.49	.08
1924	5,186	40.39	24.33	35.13	.13
1925	4,898	41.11	30.98	27.76	.01
1926	5,428	42.90	34.00	22.93	.01
1927	4,888	37.07	39.01	23.93	—
1928	4,702	38.19	36.83	24.75	.006
1929	4,160	44.88	29.74	25.29	.14
1930	5,982	39.46	29.67	30.18	.69
1931	6,761	36.34	37.80	25.57	.29

During the year 6,753 letters were sent to parents inviting consents to treatment; of these, 6,136 letters were returned 60.2 per cent. consents and 39.8 per cent. refusals.

The following comparative Tables will be found interesting:—

TABLE F.

Year.	Selected for Treatment.	Percentage of consents
1920	1,772	63.00
1921	1,655	58.36
1922	1,919	57.00
1923	4,821	54.10
1924	5,186	57.65
1925	4,898	59.45
1926	5,428	58.46
1927	4,888	57.72
1928	4,702	55.00
1929	4,160	62.63
1930	5,982	65.61
1931	6,761	60.2



TABLE G.  
NUMBER OF TEETH EXTRACTED.

Year.	Routine.		Non-Routine.		Total
	Temp.	Perm.	Temp.	Perm.	
1920	2,687	10	1,676	410	4,783
1921	3,119	15	1,470	521	5,125
1922	3,224	26	1,082	442	4,774
1923	5,605	107	502	376	6,590
1924	5,313	293	191	348	6,148
1925	6,048	420	153	329	6,950
1926	6,169	536	23	130	6,858
1927	5,149	635	—	15	5,799
1928	6,206	809	—	6	7,021
1929	7,381	977	—	—	8,358
1930	9,807	1121	—	—	10,928
1931	7,809	1117	—	—	8,926

TABLE H.  
NUMBER OF FILLINGS.

Year.	Routine.		Non-Routine		Total.
	Temp.	Perm.	Temp.	Perm.	
1920	420	310	1	23	754
1921	139	495	—	34	668
1922	20	898	—	20	938
1923	37	2,038	—	19	2,094
1924	22	2,290	1	71	2,384
1925	11	2,603	—	44	2,658
1926	19	2,826	—	4	2,849
1927	13	2,795	—	17	2,825
1928	49	3,113	—	3	3,165
1929	26	2,969	—	—	2,995
1930	29	4,535	—	—	4,564
1931	27	5,686	—	—	5,713

TABLE I.  
CHILDREN TREATED.

Year.	Routine.	Non-Routine	Total.	Percentage of Non-Routine Children Treated.
1920	1,355	1,211	2,565	47.19
1921	1,200	973	2,173	44.70
1922	1,289	725	2,014	35.90
1923	2,584	548	3,132	17.50
1924	3,107	386	3,493	11.50
1925	3,424	273	3,697	7.30
1926	3,704	90	3,794	2.30
1927	3,062	15	3,077	.48
1928	3,490	3	3,493	.008
1929	3,692	—	3,692	Nil
1930	4,672	—	4,672	Nil
1931	4,811	—	4,811	Nil

Routine Dental Inspection and treatment now includes children of all ages in the Elementary Schools, the Non-Routine group having entirely disappeared.

The following are tabulated details of work done during the year.

Number of schools visited ... ..	28
.. .. visits to schools ... ..	122
.. .. departments visited ... ..	44
.. .. half days devoted to dental inspection ... ..	122
.. .. mouths examined at dental inspection ... ..	9,637
.. .. children selected for treatment ... ..	6,761
.. .. letters sent ... ..	6,753
Actual number of children treated ... ..	4,811
Number of attendances made ... ..	6,709
.. .. appointments made ... ..	7,217
.. .. appointments broken ... ..	1,511
.. .. amalgam stoppings in permanent teeth ... ..	3,173
.. .. amalgam and cement stoppings in permanent teeth ... ..	2,101
.. .. cement stoppings in permanent teeth ... ..	404
.. .. root canal treatments ... ..	7
.. .. amalgam stoppings in temporary teeth ... ..	14
.. .. cement stoppings in temporary teeth... ..	13
Total number of stoppings ... ..	5,713
Number of permanent teeth stopped ... ..	5,020
.. .. temporary teeth extracted... ..	7,809
.. .. permanent teeth extracted... ..	1,117
.. .. local anæsthetic cases ... ..	576
.. .. nitrous oxide administrations ... ..	3,025
.. .. sundry dressings in temporary teeth... ..	85
.. .. sundry dressings in permanent teeth... ..	2,650
.. .. children for whom advice was sought ... ..	336
.. .. children brought to Clinic who then refused treatment ... ..	37
.. .. children treated who had been treated in former years ... ..	2,577
.. .. talks to parents at Schools ... ..	14
.. .. employment cases treated.. ..	22
.. .. artificial crowns fitted ... ..	—
Excision of frenum ... ..	3
Gold inlays ... ..	1
Regulation plates fitted ... ..	14
Dentures fitted ... ..	6
Epulis removed ... ..	1

The radiologist at the East Suffolk Hospital kindly took on our behalf 3 X-ray photographs of children's mouths.

During the year £104 14s. 2d. was received in payment for treatment from 3,950 children, an average of 6¼d. each.

T. A. EDMONDSON,  
School Dental Surgeon.

## MEDICAL INSPECTION RETURNS.

Year ended 31st December, 1931.

TABLE I.  
RETURN OF MEDICAL INSPECTIONS.

## A.—ROUTINE MEDICAL INSPECTIONS.

Number of Code Group Inspections.

Entrants	...	...	887
Intermediates	.	..	1,272
Leavers	..	...	940
Total	...	..	3,099

Number of other Routine Inspections ... 188

## B.—OTHER INSPECTIONS.

Number of Special Inspections	...	6,544
Number of Re-Inspections	...	5,181
Total	...	11,725

TABLE II.

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31<sup>st</sup> DECEMBER, 1931.

Defect or Disease,		ROUTINE INSPECTIONS.		SPECIAL INSPECTIONS.	
		No. of Defects.		No. of Defects.	
		Requiring Treatment.	Requiring to be kept under observation but not requiring treatment.	Requiring Treatment.	Requiring to be kept under observation but not requiring treatment.
(1)		(2)	(3)	(4)	(5)
	Malnutrition ... ..	86	27	32	1
	Uncleanliness (see Table IV., Group V.) ...	—	—	—	—
Skin	Ringworm—Scalp ... ..	2	1	2	—
	Body ... ..	—	2	6	—
	Scabies ... ..	—	1	50	—
	Impetigo ... ..	10	—	384	—
	Other Diseases (Non-Tuberculous)	18	16	701	28
Eye	Blepharitis ... ..	3	3	43	1
	Conjunctivitis ... ..	1	3	83	—
	Keratitis ... ..	—	—	—	—
	Corneal Opacities ... ..	—	—	—	—
	Defective Vision(excluding Squint) ... ..	96	37	88	8
	Squint ... ..	7	12	14	3
	Other Conditions ... ..	5	10	90	7
Ear	Defective Hearing ... ..	13	28	6	3
	Otitis Media ... ..	—	5	27	—
	Other Ear Diseases ... ..	10	14	88	16
Nose and Throat	Enlarged Tonsils only ... ..	6	443	47	106
	Adenoids only ... ..	2	13	11	1
	Enlarged Tonsils & Adenoids ... ..	14	14	43	—
	Other Conditions ... ..	5	27	411	18
	Enlarged Cervical Glands (Non-Tuberculous)	—	313	198	38
	Defective Speech .. ..	1	14	7	—
	Teeth—Dental Diseases (see Table IV., Group IV.)	355	—	—	—
Heart and Circulation	Heart Disease—Organic ... ..	—	2	2	—
	Functional ... ..	—	99	3	7
	Anæmia ... ..	1	10	24	1
Lungs	Bronchitis ... ..	1	10	48	1
	Other Non-Tuberculous Diseases	14	136	1	—
Tuber- culosis	Pulmonary—Definite ... ..	—	—	6	—
	Suspected ... ..	4	25	24	23
	Non-Pulmonary—Glands ... ..	—	—	6	—
	Spine ... ..	—	—	—	—
	Hip ... ..	—	—	—	—
	Other Bones and Joints ... ..	—	—	1	—
	Skin ... ..	—	—	—	—
	Other Forms ... ..	—	—	4	—
Nervous System	Epilepsy ... ..	—	—	1	4
	Chorea ... ..	—	—	15	—
	Other Conditions ... ..	2	20	3	5
Deform- ities	Rickets ... ..	—	—	—	—
	Spinal Curvature ... ..	—	—	—	—
	Other Forms ... ..	1	25	4	3
	Other Defects and Diseases ... ..	25	123	947	65

B.—NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

	Number of Children		Percentage of children found to require treatment.
	Inspected	Found to require treatment.	
(1)	(2)	(3)	(4)
Code Groups			
Entrants ... ..	887	95	10.7
Intermediates ... ..	1272	150	11.7
Leavers ... ..	940	108	11.4
Total (Code Groups) ... ..	3099	353	11.3
Other Routine Inspections	188	15	8.0

Column 3 includes children who were found to require treatment or required to be kept under observation.



TABLE III.  
RETURN OF ALL EXCEPTIONAL CHILDREN IN  
THE AREA.

				Boys	Girls	Total
Children suffering from the following types of Multiple Defect, <i>i.e.</i> , any combination of Total Blindness, Total Deafness, Mental Defect, Epilepsy, Active Tuberculosis, Crippling (as defined in penultimate category of the table), or Heart Disease ... ..				4	—	4
Blind (including partially blind).	(i) Suitable for training in a School for the totally blind.	At Certified Schools for the Blind ...	...	2	—	2
		At Public Elementary Schools ...	...	—	—	—
		At other Institutions ...	...	—	—	—
		At no School or Institution ...	...	—	—	—
	(ii) Suitable for training in a School for the partially blind.	At Certified Schools for the Blind or Partially Blind ...	...	1	—	1
		At Public Elementary Schools ...	...	5	7	12
		At other Institutions ...	...	—	—	—
		At no School or Institution ...	...	—	1	1
	(i) Suitable for training in a School for the totally deaf or deaf and dumb.	At Certified Schools for the Deaf ...	...	3	2	5
		At Public Elementary Schools ...	...	—	—	—
		At other Institutions ...	...	—	—	—
		At no School or Institution ...	...	—	1	1
Deaf (including deaf and dumb and partially deaf).	(ii) Suitable for training in a School for the partially deaf.	At Certified Schools for the Deaf or Partially Deaf ...	...	—	—	—
		At Public Elementary Schools ...	...	6	3	9
		At other Institutions ...	...	—	—	—
		At no School or Institution ...	...	—	—	—
Mentally Defective.	Feeble-minded.	At Certified Schools for Mentally Defective Children ...	...	49	45	94
		At Public Elementary Schools ...	...	—	1	1
		At other Institutions ...	...	—	—	—
		At no School or Institution ...	...	2	4	6
Epileptics.	Suffering from severe Epilepsy	At Certified Schools for Epileptics ...	...	—	—	—
		At Certified Residential Open Air Schools ...	...	—	—	—
		At Certified Day Open Air Schools ...	...	—	—	—
		At Public Elementary Schools ...	...	—	—	—
		At other Institutions ...	...	—	—	—
		At no School or Institution ...	...	—	1	1

TABLE III.—continued.

			Boys Girls Total		
Epileptics (continued)	Suffering from Epilepsy which is not severe.	At Public Elementary Schools ...	4	0	9
		At no School or Institution ...	1	1	2
Physically Defective.	Active pulmonary tuberculosis (in- cluding pleura and intra- thoracic glands).	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ...	6	4	10
		At Certified Residential Open Air Schools ...	—	—	—
		At Certified Day Open Air Schools ...	—	—	—
		At Public Elementary Schools ...	—	—	—
		At other Institutions ...	—	—	—
		At no School or Institution ...	3	5	8
	Quiescent or arrested pul- monary tuber- culosis (includ- ing pleura and intrathoracic glands).	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ...	—	—	—
		At Certified Residential Open Air Schools ...	—	—	—
		At Certified Day Open Air Schools ...	10	4	14
		At Public Elementary Schools ...	25	21	46
		At other Institutions ...	1	—	1
		At no School or Institution ...	15	14	29
	Tuberculosis of the peripheral glands.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ...	1	—	1
		At Certified Residential Open Air Schools ...	—	—	—
		At Certified Day Open Air Schools ...	9	4	13
		At Public Elementary Schools ...	25	38	63
		At other Institutions ...	—	1	1
		At no School or Institution ...	11	18	29
	Abdominal tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ...	—	1	1
		At Certified Residential Open Air Schools ...	1	—	1
		At Certified Day Open Air Schools ...	3	3	6
		At Public Elementary Schools ...	8	4	12
		At other Institutions ...	—	—	—
		At no School or Institution ...	2	4	6
	Tuberculosis of bones and joints (not including deformities due to old tuber- culosis).	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board ...	1	—	1
		At Certified Day Open Air Schools ...	2	3	5
		At Public Elementary Schools ...	13	10	23
		At other Institutions ...	1	1	2
		At no School or Institution ...	5	6	11



TABLE III.—continued.

		Boys Girls Total			
Tuberculosis of other organs (skin, etc.).	Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	...	...	...	
	At Public Elementary Schools	...	2	5	7
	At other Institutions	...	...	...	...
	At no School or Institution	...	...	3	3
Delicate children <i>i.e.</i> , all children (except those included in other groups) whose general health renders it desirable that they should be specially selected for admission to an Open Air School	At Certified Residential Cripple Schools	...	—	—	—
	At Certified Day Cripple Schools	...	—	—	—
	At Certified Residential Open Air Schools	...	2	2	4
	At Certified Day Open Air Schools	...	29	38	67
	At Public Elementary Schools	...	54	54	108
	At other Institutions	...	9	2	11
	At no School or Institution	...	31	32	63
Crippled Children (other than those with active tuberculous disease who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life.	At Certified Hospital Schools	...	1	—	1
	At Certified Residential Cripple Schools	...	1	—	1
	At Certified Day Cripple Schools	...	—	—	—
	At Certified Residential Open Air Schools	...	—	—	—
	At Certified Day Open Air Schools	...	3	1	4
	At Public Elementary Schools	...	17	13	30
	At other Institutions	...	—	—	—
	At no School or Institution	...	6	7	13*
* Two girls should be receiving Special School Education					
Children with heart disease, <i>i.e.</i> , children whose defect is so severe as to necessitate the provision of educational facilities other than those of the public elementary school.	At Certified Hospital Schools	...	—	—	—
	At Certified Residential Cripple Schools	...	—	—	—
	At Certified Day Cripple Schools	...	—	—	—
	At Certified Residential Open Air Schools	...	—	—	—
	At Certified Day Open Air Schools	...	—	—	—
	At Public Elementary Schools	...	1	3	4
	At other Institutions	...	—	—	—
At no School or Institution	...	2	—	2	

\* Two girls should be receiving Special School Education

TABLE IV.

RETURN OF DEFECTS TREATED DURING THE  
YEAR ENDED 31st DECEMBER, 1931.  
TREATMENT TABLE.

Group I.—Minor Ailments (excluding Uncleanliness, for which see Group V.).

Disease or Defect.  (1)	Number of Defects Treated, or Under Treatment During the Year		
	Under the Authority's Scheme. (2)	Otherwise. (3)	Total. (4)
Skin—			
Ringworm, scalp ... ..	1	3	4
Ringworm, body ... ..	2	4	6
Scabies ... ..	28	22	50
Impetigo ... ..	111	283	394
Other skin disease ... ..	217	502	719
Minor Eye Defects— external and other, but exclud- ing cases falling in Group II). ...	116	109	225
Minor Ear Defects ... ..	13	85	98
Miscellaneous— e.g. minor injuries, bruises, sores, chilblains, etc. ... ..	424	728	1152
Total ... ..	912	1,736	2,648

Group II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I.).

Defect or Disease	Number of Defects dealt with.			
	Under the Authority's Scheme.	Submitted to refraction by private practitioner or at Hospital apart from the Authority's Scheme.	Other wise.	Total
(1)	(2)	(3)	(4)	(5)
Errors of Refraction (including Squint) (Operation for Squint should be recorded separately in the body of the Report) ...	361	8	—	369
Other Defect or Disease of the Eyes (excluding those recorded in Group I). ...	—	—	—	—
TOTAL ...	361	8	—	369

Total number of children for whom spectacles were prescribed

(a) Under the Authority's Scheme ...	259
(b) Otherwise ...	5

Total number of children who obtained or received spectacles

(a) Under the Authority's Scheme ...	251
(b) Otherwise ...	3

Group III.—Treatment of Defects of Nose and Throat.

NUMBER OF DEFECTS.				
Received Operative Treatment.		Total.	Received other forms of Treatment.	Total number Treated.
Under the Authority's Scheme, in Clinic or Hospital. (1)	By Private Practitioner or Hospital, apart from the Authority's Scheme. (2)			
89	2	91	32	123

## Group IV.—Dental Defects.

## 1.—Number of Children who were :—

## (a) Inspected by the Dentist :—

Aged.

5	...	...	...	891	} Total 9,637.
6	...	...	...	1,010	
7	...	...	...	1,081	
8	...	...	...	1,075	
9	...	...	...	1,167	
10	...	...	...	1,249	
11	...	...	...	1,101	
12	...	...	...	846	
13	...	...	...	752	
14	...	...	...	340	
15	...	...	...	125	
16	...	...	...	125	
Specials	...	...	...	...	—
Grand Total				...	9,637

(b) Found to require treatment ... 6,761

(c) Actually treated ... 4,811

## 2.—Half-days devoted to Inspection 122

Treatment 1,328 Total 1,450

## 3.—Attendances made by children for treatment 6,709

## 4.—Fillings : Permanent teeth ... 5,686

Temporary teeth ... 27 Total 5,713

## 5.—Extractions : Permanent teeth ... 1,117

Temporary teeth ... 7,809 Total 8,926

## 6.—Administrations of general anæsthetics for extractions ... 3,025

## 7.—Other operations :—

Permanent teeth ... 2,650

Temporary teeth ... 85 Total 2,735

## Group V.—Uncleanliness and Verminous Conditions.

## 1.—Average number of visits per school made during the year by the School Nurses ... 3.3

## 2.—Total number of examinations of children in the Schools by School Nurses ... 21,216

## 3.—Number of individual children found unclean ... 184

## 4.—Number of children cleansed under arrangements made by the Local Education Authority ... 14

## 5.—Number of cases in which legal proceedings were taken :—

(a) Under the Education Act, 1921 ... nil.

(b) Under School Attendance Byelaws ... nil.

A. M. N. PRINGLE,

School Medical Officer.



